

TREMproof 260

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TREMproof® 260

Single-Component Asphalt Emulsion Waterproofing Membrane

Product Description

TREMproof® 260 Waterproofing Membrane is a polymer-enhanced, single-component, fluid-applied, asphalt emulsion, below-grade waterproofing membrane. It is available in both a spray and roller grade.

Basic Uses

Typical applications for TREMproof 260 include foundation walls, retaining walls and most backfilled applications. TREMproof 260 is also designed for use in approved methane barrier applications. Contact Tremco Technical Services for additional information regarding methane barrier applications.

Features and Benefits

- TREMproof 260 is a fully-adhered waterproofing membrane that can be applied to damp or green concrete allowing application more quickly after the removal of forms or following wet weather.
- The ability to co-spray the material to speed the curing process allows for fast-tracking construction and reduces the potential for washout in the face of inclement weather.

Availability

Immediately available from your local Tremco Sales Representative or Distributor. For Distributor locations, visit www.tremcosealants.com.

Packaging

TREMproof 260 SP 55-gal (208-L) drum containing (52 gal (197 L) of TREMproof 260), 4 drums/pallet

TREMproof 260 SP 330-Gallon (1,249-L) tote, 1 tote/pallet

TREMproof 260 R 5-gallon (19-L) pail, 36 pails/pallet

Colors

Black

Limitations

- Do not apply to contaminated surfaces
- Not to be used as an exposed or wearing surface. Limit UV exposure to a maximum of 30 days.
- Requires the use of protection and/or drainage course.
- Do not let the product freeze prior to being applied to the substrate. It is best to store TREMproof 260 off the floor at an ambient temperature above 50 °F (10 °C). Opened drums should be tightly sealed before storage.
- When applying material below 40 °F (4 °C), contact your local Tremco Sales Representative or Technical Service.
- Not approved for direct contact with TREMproof 250 GC and TREMproof 201/60. Contact Tremco for transition details if condition exists on a project.
- Not for use in horizontal waterproofing applications
- Not for use in submerged conditions
- TREMproof 260 installation may require the use of sealants and other transition membranes for full system installation. Compatible materials include: Dymonic® 100, Vulkem® 801, Tremco DualFlex®.

Warranty

Tremco warrants its Products to be free of defects in materials but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE with respect to Tremco Products. Tremco's sole obligation shall be, at its option, to replace or to refund the purchase price of the quantity of Tremco Products proven to be defective, and Tremco shall not be liable for any loss or damage.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	DESCRIPTION	
Type	Polymer-Modified emulsion	
Color	Black	
Solids	64%	
Density	8.1 lb/gal	
Application	Sprayer/Roller	
Cure Time	16 to 24 hr at 75 °F (24 °C), 50% RH	
Thickness	Minimum 100 mils (wet), 60 mils (dry)	
PROPERTY	TEST METHOD	TYPICAL VALUES
Water Resistance	ASTM C836; AATC-127	Pass
Adhesion-in-Peel after Water Immersion (Unprimed)	ASTM C836; ASTM C 794	Exceeds
Low-Temp Flexibility	ASTM C836; ASTM C 836	Pass
Weight Loss 20% maximum Loss 80% Solids minimum	ASTM C836; ASTM C 1250	
Low Temperature Crack Bridging	ASTM C836; ASTM C1305	Pass**
Extension after heat aging No observable cracking	ASTM C836; ASTM C1522	
Hardness, Type 00 50 Min.	ASTM C836; ASTM D 2240	Passes
Water Vapor Permeance	ASTM C836; ASTM E96 Dry Cup	0.09 US Perms
	ASTM C836; ASTM E96 Wet Cup	1.70 US Perms
	ASTM C836; ASTM E96 Inverted Wet Cup	
Maximum V.O.C.	Method 310	72 g/L
Shelf Life Stability 6 Months Minimum		
Application Temperature	Above 40 °F (5 °C) and rising. If installing below 40 °F (5 °C), please refer to additional application instructions in Cold Weather Technical Bulletin or contact Tremco Technical Service at 866-209-2404.	
Storage Temperature	40 to 100 °F (5 to 37 °C)	

*Varies Depending on grade of material used.

**Modified ASTM C1305

0815/TP260DS-BG

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1445 Rue de Coulomb
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514.521.9555

APPLICATION INSTRUCTIONS

1. Purpose

1.1 The purpose of this document is to establish uniform procedures for applying TREMproof® 260 Waterproofing Membrane.

1.2 The techniques involved may require modifications to adjust to jobsite conditions. Consult your Tremco Representative for specific design requirements.

2. Scope

2.1 This document will provide typical instructions for the application of TREMproof 260. Tremco recognizes that site-specific conditions, weather patterns, contractor preferences and membrane detailing may require deviation or alteration from these prescribed installation procedures. When such circumstances exist on a project, Tremco recommends that the local Tremco Sales Representative or Technical Services be contacted for assistance and approval.

3. Possible System Components

- Dymonic® 100
- HDPE Protection/Barrier Courses
- Paraterm® Bar
- TREMDrain® DPI
- TREMDrain QSP
- TREMDrain Series Drainage Mats and Protection Boards
- Tremco 2450 Protection Board
- Tremco Protection Mat

4. Substrate Preparation

4.1 Surface to be waterproofed may be dry, damp or green concrete and shall be clean, sound and free of all contaminants which may interfere with adhesion or proper curing. If release agents are present, they must be removed per the manufacturer's recommendation prior to the installation of TREMproof 260. Allow a minimum of 24 hours for concrete to dry after removing forms from walls.

4.2 Concrete surface shall be free of voids, exposed aggregate areas, honeycombs, splatters, ridges, fins and other projections or depressions which preclude a smooth and level surface.

4.3 Any concrete masonry unit construction may receive a parge coat of acceptable cementitious coating approved by Tremco. All CMU walls must have all joints solid grouted and struck flush with no voids.

4.4 All penetrations shall be encased in concrete. Penetrations shall be solid grouted in place. No flexible pipe or corrugated pipe of any type shall be used for a through wall penetration. Penetrations shall be spaced a minimum of 2" (5 cm) apart to allow for detail work.

4.5 Sidewalls of expansion joints shall be parallel, smooth and straight. Block out if required shall be as per the recommendations of the manufacturer.

5. Detail Work

5.1 All shrinkage cracks shall be treated with a 60-mil coating of TREMproof 260 6" (15 cm) wide, centered over the crack. Do not co-spray TREMproof 260 detail coat.

5.2 Moving structural cracks greater than 1/16" (1.6 mm) and expansion joints shall be routed and caulked with Dymonic FC, followed by a 60-mil detail coat of TREMproof 260, extending a minimum of 3" (7.6 cm) on either side of the crack. Do not co-spray TREMproof 260 detail coat.

5.3 A 1" (25 mm) cant of Dymonic FC shall be installed around all penetrations. Install a 60-mil detail coat of TREMproof 260 extending 2" (5 cm) onto the penetration and 6" (15 cm) onto the surrounding substrate. Do not co-spray detail coat.

5.4 Inside and outside corners shall be treated with a 60-mil detail coat of TREMproof 260 extending a minimum of 3" (7.6 cm) on either side of the corner. Do not co-spray detail coat.

6. Membrane Application

6.1 TREMproof 260 can be applied to surfaces when ambient temperatures are as low as 20 °F (-7 °C). Prior to spraying in temperatures below 40 °F (4 °C), contact Tremco Technical Service at 866-209-2404 to ensure your equipment and operational practices meet the needs of your application environment.

6.2 Spray TREMproof 260 between 2,200 and 2,800 lb/in² (psi) (155 and 197 kg/cm²). For best results, use a .535 or .539 spray tip.

6.3 Attention must be taken during the application process to ensure a consistent, homogeneous membrane. Use a wet film thickness gauge and staging of material to ensure proper minimum thickness is achieved.

6.4 The membrane should be applied to a minimum of 100 wet mils. For poured concrete walls, an estimated maximum coverage rate of 16 ft²/gal (0.39 M²/L) will yield the desired wet mil thickness at application. For unparged masonry walls, an estimated coverage rate of 13 ft²/gal (0.32 M²/L) will yield the desired wet mil thickness at application.

6.5 TREMproof 260 cure time can be accelerated through a process known as co-spraying. Co-spraying involves the use of a specialized dual-head spray gun and other support equipment where an accelerant is sprayed in tandem with the TREMproof 260. When co-spraying TREMproof 260, the pressure should remain between 2,200 and 2,800 psi (155 and 197 kg/cm²) on the TREMproof 260 (high pressure) side and between 85 and 100 psi (6 and 7 kg/cm²) on the accelerant (low pressure) side. The recommended tip size is .539 on the high-pressure side and .627 on the low-pressure side.

6.6 Allow TREMproof 260 to cure prior to exposure to rain, sleet or snow. It is important to note that the co-spraying only accelerates the cure time of TREMproof 260 and it is not required to cause the membrane to cure – TREMproof 260 is a single-component air cure membrane and will cure without being accelerated. The accelerant used in the co-spray process is water (~98%) mixed with calcium chloride (~2%). Accelerant is mixed at a 1 to 5 ratio (1 part accelerant to 5 parts TREMproof 260) at the spray gun.

6.7 Prepare accelerant solution by mixing 77% calcium chloride flakes with water as follows: 16.6 oz (465 g) of 77% calcium chloride flakes per 5 gal (19 L) of water. Tremco has partnered with Spray Equipment to evaluate a number of sprayer or pump options for TREMproof 260. Contact Spray

TREMproof® 260

Single-Component Asphalt Emulsion Waterproofing Membrane

Equipment at 800-666-6072 for detailed equipment recommendations or validation of existing equipment.

6.8 Inspect the surface thoroughly for pinholes, blisters or other voids in the membrane. If any are detected, reapply until a monolithic coating at the specified minimum thickness is achieved. If the membrane has already completely cured, prepare the surface with a mineral spirit wipe to clean and soften the surface of the TREMproof 260 membrane. Immediately reapply at the minimum specified thickness, extending 6" (15 cm) in all directions.

6.9 The TREMproof 260 requires the use of a protection course. TREMDrain DPI may be installed while the membrane is still tacky. Begin installation by placing the first 4' x 4' (1.22 M x 1.22 M) TREMDrain DPI board at the base of the wall, resting on the footer. TREMDrain QSP may be installed after the membrane is set, but is still tacky. Tremco Protection Mat, HDPE or Tremco 2450 cut to size, may be installed in the tacky membrane as a protection course.

6.10 Other TREMDrain prefabricated drainage mats, as well as expanded and extruded polystyrene boards, may be installed once the membrane has cured with a Tremco approved construction adhesive. Contact Tremco Technical Service for more information.

6.11 In co-sprayed applications, TREMDrain QSP must be set into the membrane within 2 to 3 min. Failure to do so would require a 10-mil recoat to adhere the course.

7. Clean Up

7.1 Remove any masking materials after installation. Clean spillage and soiling on adjacent construction that will be exposed in the finished work using cleaning agents and procedures recommended by the manufacturer of the affected construction.

7.2 Protect membranes to avoid damage from other trades and other construction materials during subsequent operations. Backfill operations may begin after the membrane has cured (16 to 24 hr and firm and dry to the touch).

7.3 Schedule work so that the membrane is covered as soon as possible after installation. If it cannot be covered within 30 days of installation, apply temporary UV protection such as dark plastic sheets or tarpaulins or contact Tremco for additional recommendations.

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SAFETY DATA SHEET

1. Identification

Material name: TREMPROOF 260**Material:** 582100 855**Recommended use and restriction on use****Recommended use:** Coatings**Restrictions on use:** Not known.**Manufacturer/Importer/Supplier/Distributor Information**Tremco U.S Sealants
3735 Green Road
Cleveland OH 44122
US**Contact person:****Telephone:****Emergency telephone number:**

EH&S Department

216-292-5000

1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification**Health Hazards**

Skin sensitizer Category 1

Carcinogenicity Category 2

Unknown toxicity - Health

Acute toxicity, oral 31.15 %

Acute toxicity, dermal 31.32 %

Acute toxicity, inhalation, vapor 99.9 %

Acute toxicity, inhalation, dust or mist 95.26 %

Environmental Hazards

Acute hazards to the aquatic environment Category 3

Unknown toxicity - Environment

Acute hazards to the aquatic environment 94.99 %

Chronic hazards to the aquatic environment 100 %

Label Elements**Hazard Symbol:****Signal Word:**

Warning

Hazard Statement:	May cause an allergic skin reaction. Suspected of causing cancer. Harmful to aquatic life.
Precautionary Statement:	
Prevention:	Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
Response:	IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Specific treatment (see this label). Wash contaminated clothing before reuse.
Storage:	Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Asphalt	8052-42-4	40 - 70%
Petroleum distillates	64742-47-8	3 - 7%
Wood rosin	8050-09-7	0.5 - 1.5%
Sodium hydroxide	1310-73-2	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion:	Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.
Inhalation:	Move to fresh air.
Skin Contact:	If skin irritation occurs: Get medical advice/attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Asphalt - Inhalable fraction. - as benzene solubles	TWA	0.5 mg/m3	US. ACGIH Threshold Limit Values (2011)
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	US. ACGIH Threshold Limit Values (2011)
	TWA	200 mg/m3	US. ACGIH Threshold Limit Values (2011)
Sodium hydroxide	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
	PEL	2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Chemical name	type	Exposure Limit Values	Source
Asphalt - Aerosol, inhalable. - as benzene solubles	TWA	0.5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Asphalt - Inhalable fraction. - as benzene solubles	TWAEV	0.5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Asphalt - Fume.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Petroleum distillates	TWAEV	525 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWAEV	200 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	TWAEV	200 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)

Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information:	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.
Eye/face protection:	Wear safety glasses with side shields (or goggles).
Skin Protection	
Hand Protection:	Use suitable protective gloves if risk of skin contact.
Other:	Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures:	Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Brown
Odor:	Slight odor
Odor threshold:	No data available.
pH:	9 - 10.5
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	> 93 °C > 200 °F (Setaflash Closed Cup)
Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	23.76 hPa
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.

Relative density:	1
Solubility(ies)	
Solubility in water:	Dispersible
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid:	Avoid heat or contamination.
Incompatible Materials:	Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates).
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information**Information on likely routes of exposure**

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. Causes mild skin irritation. May cause an allergic skin reaction.
Eye contact:	Eye contact is possible and should be avoided.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral	
Product:	No data available.
Dermal	
Product:	ATEmix: 2,427.81 mg/kg
Inhalation	
Product:	No data available.

Repeated dose toxicity**Product:** No data available.**Skin Corrosion/Irritation****Product:** No data available.**Serious Eye Damage/Eye Irritation****Product:** No data available.**Specified substance(s):**

Asphalt	in vivo (Rabbit, 24 hrs): Not irritating
Petroleum distillates	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Wood rosin	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Sodium hydroxide	in vivo (Rabbit, 1 d): 10% Sodium Hydroxide- Category 1; 0.5% Sodium Hydroxide- Slightly irritating to eyes

Respiratory or Skin Sensitization**Product:** No data available.**Carcinogenicity****Product:** Suspected of causing cancer.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Asphalt	Overall evaluation: Possibly carcinogenic to humans.
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US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro****Product:** No data available.**In vivo****Product:** No data available.**Reproductive toxicity****Product:** No data available.**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Petroleum distillates LC 50 (Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), 96 h): 2.9 mg/l Mortality

Sodium hydroxide LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): 125 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Sodium hydroxide EC 50 (Water flea (*Ceriodaphnia dubia*), 48 h): 34.59 - 47.13 mg/l Intoxication

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Asphalt NOAEL (*Oncorhynchus mykiss*, 28 d): $\geq 1,000$ mg/l interpreted

Petroleum distillates NOAEL (*Oncorhynchus mykiss*, 28 d): 0.098 mg/l QSAR

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio**Product:** No data available.**Bioaccumulative Potential****Bioconcentration Factor (BCF)****Product:** No data available.**Partition Coefficient n-octanol / water (log Kow)****Product:** No data available.**Mobility in Soil:** No data available.**Other Adverse Effects:** Harmful to aquatic organisms.**13. Disposal considerations****Disposal instructions:** Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.**Contaminated Packaging:** No data available.**14. Transport information****TDG:**

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information**US Federal Regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Asphalt	100 lbs.
Sodium hydroxide	1000 lbs.
Nonane	100 lbs.
Ammonium hydroxide	1000 lbs.
Hydrogen sulfide	100 lbs.
Ethyl Acrylate	1000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Immediate (Acute) Health Hazards

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Hydrogen sulfide	100 lbs.	500 lbs.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Asphalt	100 lbs.
Sodium hydroxide	1000 lbs.
Nonane	100 lbs.
Ammonium hydroxide	1000 lbs.
Hydrogen sulfide	100 lbs.
Ethyl Acrylate	1000 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Hydrogen sulfide	500lbs
Asphalt	500 lbs
Petroleum distillates	500 lbs
Wood rosin	500 lbs
Sodium hydroxide	500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Hydrogen sulfide	10000 lbs

US State Regulations**US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act**Chemical Identity**Asphalt
Petroleum distillates**US. Massachusetts RTK - Substance List****Chemical Identity**Asphalt
Petroleum distillates
Hydrogen sulfide
Ethyl Acrylate**US. Pennsylvania RTK - Hazardous Substances****Chemical Identity**Asphalt
Petroleum distillates**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.

Other Regulations:

Regulatory VOC (less water and exempt solvent):	71 g/l
VOC Method 310:	4.89 %

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or

exempt from the Inventory.

New Zealand Inventory of Chemicals:

One or more components in this product are not listed on or exempt from the Inventory.

Japan ISHL Listing:

One or more components in this product are not listed on or exempt from the Inventory.

Japan Pharmacopoeia Listing:

One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision
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Revision Date: 08/14/2015

Version #: 1.0

Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

SAFETY DATA SHEET

1. Identification

Material name: TREMPROOF 260**Material:** 582100 855**Recommended use and restriction on use****Recommended use:** Coatings**Restrictions on use:** Not known.**Manufacturer/Importer/Supplier/Distributor Information**Tremco Canadian Sealants
220 Wicksteed Ave
Toronto ON M4H 1G7
CA**Contact person:****Telephone:****Emergency telephone number:**

EH&S Department

1-800-263-6046

1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification**Health Hazards**

Skin sensitizer Category 1

Carcinogenicity Category 2

Unknown toxicity - Health

Acute toxicity, oral 31.15 %

Acute toxicity, dermal 31.32 %

Acute toxicity, inhalation, vapor 99.9 %

Acute toxicity, inhalation, dust or mist 95.26 %

Environmental Hazards

Acute hazards to the aquatic environment Category 3

Unknown toxicity - Environment

Acute hazards to the aquatic environment 94.99 %

Chronic hazards to the aquatic environment 100 %

Label Elements**Hazard Symbol:****Signal Word:**

Warning

Hazard Statement:	May cause an allergic skin reaction. Suspected of causing cancer. Harmful to aquatic life.
Precautionary Statement:	
Prevention:	Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
Response:	IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. If exposed or concerned: Get medical advice/attention. Specific treatment (see this label). Wash contaminated clothing before reuse.
Storage:	Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Asphalt	8052-42-4	40 - 70%
Petroleum distillates	64742-47-8	3 - 7%
Wood rosin	8050-09-7	0.5 - 1.5%
Sodium hydroxide	1310-73-2	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion:	Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.
Inhalation:	Move to fresh air.
Skin Contact:	If skin irritation occurs: Get medical advice/attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
Asphalt - Inhalable fraction. - as benzene solubles	TWA	0.5 mg/m3	US. ACGIH Threshold Limit Values (2011)
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	US. ACGIH Threshold Limit Values (2011)
	TWA	200 mg/m3	US. ACGIH Threshold Limit Values (2011)
Sodium hydroxide	Ceiling	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
	PEL	2 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Chemical name	type	Exposure Limit Values	Source
Asphalt - Aerosol, inhalable. - as benzene solubles	TWA	0.5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Asphalt - Inhalable fraction. - as benzene solubles	TWAEV	0.5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Asphalt - Fume.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Petroleum distillates	TWAEV	525 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Petroleum distillates - Non-aerosol. - as total hydrocarbon vapor	TWAEV	200 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	TWAEV	200 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)

Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information:	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.
Eye/face protection:	Wear safety glasses with side shields (or goggles).
Skin Protection	
Hand Protection:	Use suitable protective gloves if risk of skin contact.
Other:	Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures:	Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Brown
Odor:	Slight odor
Odor threshold:	No data available.
pH:	9 - 10.5
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	No data available.
Flash Point:	> 93 °C > 200 °F (Setaflash Closed Cup)
Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	23.76 hPa
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.

Relative density:	1
Solubility(ies)	
Solubility in water:	Dispersible
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid:	Avoid heat or contamination.
Incompatible Materials:	Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates).
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. Causes mild skin irritation. May cause an allergic skin reaction.
Eye contact:	Eye contact is possible and should be avoided.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral	
Product:	No data available.
Dermal	
Product:	ATEmix: 2,427.81 mg/kg
Inhalation	
Product:	No data available.

Repeated dose toxicity**Product:** No data available.**Skin Corrosion/Irritation****Product:** No data available.**Serious Eye Damage/Eye Irritation****Product:** No data available.**Specified substance(s):**

Asphalt	in vivo (Rabbit, 24 hrs): Not irritating
Petroleum distillates	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Wood rosin	in vivo (Rabbit, 24 - 72 hrs): Not irritating
Sodium hydroxide	in vivo (Rabbit, 1 d): 10% Sodium Hydroxide- Category 1; 0.5% Sodium Hydroxide- Slightly irritating to eyes

Respiratory or Skin Sensitization**Product:** No data available.**Carcinogenicity****Product:** Suspected of causing cancer.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Asphalt	Overall evaluation: Possibly carcinogenic to humans.
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US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro****Product:** No data available.**In vivo****Product:** No data available.**Reproductive toxicity****Product:** No data available.**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Petroleum distillates LC 50 (Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), 96 h): 2.9 mg/l Mortality

Sodium hydroxide LC 50 (Western mosquitofish (*Gambusia affinis*), 96 h): 125 mg/l Mortality

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Sodium hydroxide EC 50 (Water flea (*Ceriodaphnia dubia*), 48 h): 34.59 - 47.13 mg/l Intoxication

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

Asphalt NOAEL (*Oncorhynchus mykiss*, 28 d): $\geq 1,000$ mg/l interpreted

Petroleum distillates NOAEL (*Oncorhynchus mykiss*, 28 d): 0.098 mg/l QSAR

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability

Biodegradation

Product: No data available.

BOD/COD Ratio**Product:** No data available.**Bioaccumulative Potential****Bioconcentration Factor (BCF)****Product:** No data available.**Partition Coefficient n-octanol / water (log Kow)****Product:** No data available.**Mobility in Soil:** No data available.**Other Adverse Effects:** Harmful to aquatic organisms.**13. Disposal considerations****Disposal instructions:** Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.**Contaminated Packaging:** No data available.**14. Transport information****TDG:**

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information**US Federal Regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Asphalt	100 lbs.
Sodium hydroxide	1000 lbs.
Nonane	100 lbs.
Ammonium hydroxide	1000 lbs.
Hydrogen sulfide	100 lbs.
Ethyl Acrylate	1000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Immediate (Acute) Health Hazards

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

<u>Chemical Identity</u>	<u>Reportable quantity</u>	<u>Threshold Planning Quantity</u>
Hydrogen sulfide	100 lbs.	500 lbs.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Asphalt	100 lbs.
Sodium hydroxide	1000 lbs.
Nonane	100 lbs.
Ammonium hydroxide	1000 lbs.
Hydrogen sulfide	100 lbs.
Ethyl Acrylate	1000 lbs.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Hydrogen sulfide	500lbs
Asphalt	500 lbs
Petroleum distillates	500 lbs
Wood rosin	500 lbs
Sodium hydroxide	500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Hydrogen sulfide	10000 lbs

US State Regulations**US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act**Chemical Identity**Asphalt
Petroleum distillates**US. Massachusetts RTK - Substance List****Chemical Identity**Asphalt
Petroleum distillates
Hydrogen sulfide
Ethyl Acrylate**US. Pennsylvania RTK - Hazardous Substances****Chemical Identity**Asphalt
Petroleum distillates**US. Rhode Island RTK**

No ingredient regulated by RI Right-to-Know Law present.

Other Regulations:

Regulatory VOC (less water and exempt solvent):	71 g/l
VOC Method 310:	4.89 %

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or

exempt from the Inventory.

New Zealand Inventory of Chemicals:

One or more components in this product are not listed on or exempt from the Inventory.

Japan ISHL Listing:

One or more components in this product are not listed on or exempt from the Inventory.

Japan Pharmacopoeia Listing:

One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision
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Revision Date: 08/14/2015

Version #: 1.0

Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.



July 13, 2015

RE: TREMproof 260- Green Building Product Information (LEED® Information)

Tremco, as an organization, is committed to quality, responsive to both internal and external customers, our employees, our community and environment, and we will treat all with respect and good stewardship.

Tremco Inc. certifies the following information for TREMproof 260

Regional Materials:

TREMproof 260 is manufactured in Medina, Ohio.

No single extracted material is used to produce the majority of this product. Additionally, all raw materials come from one of several sources which in turn come from one of several raw material feed stocks. As such, point source for the raw materials cannot be determined.

Recycled Content Information:

Recycled content for TREMproof 260 is not available, and for the purposes of LEED reporting should be assumed to be zero.

VOC Content Information:

TREMproof 260 has a VOC content of 72g/l equaling 4.93% by weight as applied/mixed.

TREMproof 260's VOC level is below limits set by SCAQMD.

Additional Information:

Should you have any questions or require additional information, please do not hesitate to contact Technical Services or your local Tremco Field Representative.

Sincerely,

A handwritten signature in blue ink, appearing to read "Amy Woodard", with a stylized flourish at the end.

Amy Woodard
Manager
Compliance and Regulatory

Tremco Incorporated

3735 Green Road • Beachwood, Ohio 44122 • 216-292-5000

Global Sealants Division

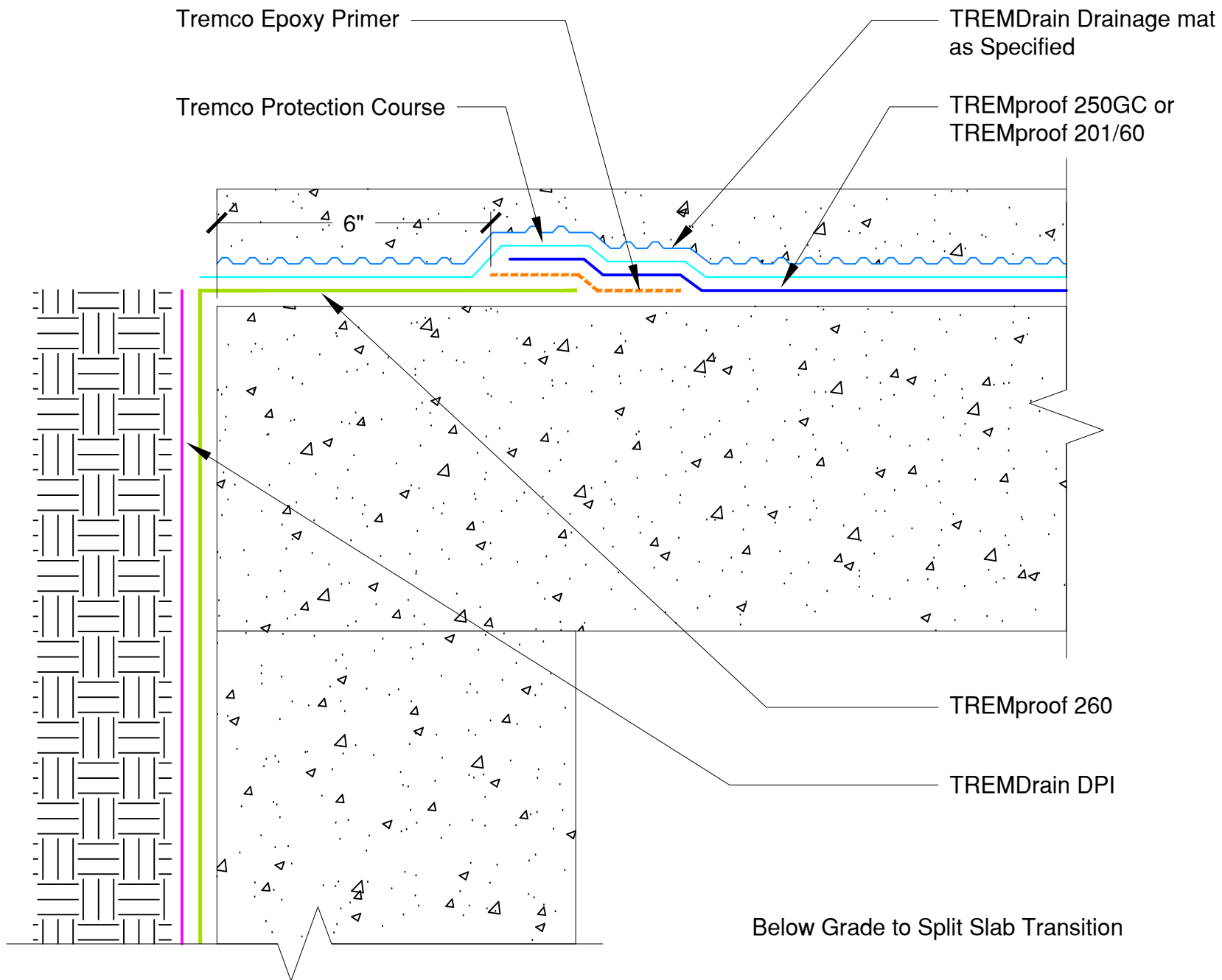
Commercial Sealants & Waterproofing



CERTIFICATION LETTER

We certify that TREMproof® 260 as manufactured by Tremco Incorporated, Cleveland, Ohio has been tested against ASTM C 836 (minus solids content), Standard Specification for High-Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course and does conform to the performance requirements.

TREMproof 260 has been approved by the **City of Los Angeles (COLA)** Department of Building as both a waterproofing membrane and a methane barrier membrane.



Detail	Cold Applied Details		Drawing Number	C-21
	Drawn by: K. Thorpe	Scale: None	Date: 08/05/09	

Tremco Incorporated

3735 Green Road • Beachwood, Ohio 44122 • 216-292-5000 www.tremcosealants.com



Warranty No: *****
Today's Date: *****
Exp: *****

Commercial Sealants & Waterproofing

Standard Membrane Warranty

PROJECT
NAME

APPLICATOR

ARCHITECT/
ENGINEER

GENERAL
CONTRACTOR

OWNER

DATE OF
SUBSTANTIAL
COMPLETION

PRODUCT(S)

TYPE
OF WORK

TREMproof Membrane materials, when applied to various construction materials following the procedures, instructions and conditions of Tremco Incorporated ("Tremco") as set forth in our written specifications, technical data sheets and application instructions is covered by the following warranty:

 - year(s) Warranty: Tremco warrants to the Owner that for a period of year(s) following the date of substantial completion, TREMproof Membrane materials, when applied according to directions, 1) will not become brittle or crack due to normal exposure or normal contraction, 2) will cure to a firm rubber like structure, and 3) will meet the requirements of the ASTM specification which applies to the product used. Tremco shall, at its option, either refund the purchase price of, or provide replacement for, that portion of the TREMproof Membrane materials which fail within said - year period to perform in accordance with the Warranty, and such refund or replacement shall constitute the limit of the Company's liability and obligation for any such failure.

The Warranty shall not apply if the membrane is ruptured by any cause other than failure of the TREMproof Membrane materials and/or is subject to misuse or abnormal use or conditions. Tremco makes no warranty with respect to appearance or color.

Tremco's obligations under this Warranty are expressly conditioned upon receipt of full payment for the Product and the Owner's compliance with each of its responsibilities described in this Warranty document. Any delay in full payment to Tremco shall not extend the Warranty Period.

No representative of Tremco has the authority to make any representations or provisions except as stated herein. This Warranty is issued to the above-named Owner and is transferable with the written consent of Tremco.

THE ABOVE WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, EXCEPT AS EXPRESSLY PROVIDED HEREIN. TREMCO SHALL NOT BE LIABLE FOR DAMAGE TO THE PROJECT STRUCTURE OR INTERIOR CONTENTS OR FOR ANY OTHER CONSEQUENTIAL, SPECIAL OR OTHER DAMAGES ARISING FROM OR RELATED TO, DIRECTLY OR INDIRECTLY, THIS WARRANTY OR THE PERFORMANCE OF THE MATERIALS COVERED BY THIS WARRANTY, WHETHER BASED ON BREACH OF WARRANTY, NEGLIGENCE OR OTHER THEORY OF LIABILITY.

SAMPLE

TREMCO INCORPORATED
Commercial Sealants & Waterproofing

Michael J. Soeder, VP Sales, NA

TO EXPEDITE PROCESSING, THIS DOCUMENT WILL BE COMPLETED AND DELIVERED IN ELECTRONIC FORM ONLY. AN ELECTRONIC SIGNATURE FROM A TREMCO REPRESENTATIVE ON A COMPLETED WARRANTY DOCUMENT IS VALID AND BINDING AND IS ENFORCEABLE TO THE SAME EXTENT AS A PENNED SIGNATURE.

Tremco Incorporated

3735 Green Road • Beachwood, Ohio 44122 • 216-292-5000



Global Sealants Division
Integrated Technical Solutions

Date: November 26, 2008

To: Distribution

From: Alexander Murph

Technical Service Bulletin No. S-08-41

Additional application Instructions when spraying TREMproof 260 in Cold weather

This Tech Service Bulletin is written in reference to the application of TREMproof 260 in sub-freezing conditions. TREMproof 260 may be applied to concrete foundations in sub-freezing temperatures successfully down to 0°F. Please follow the directions for storage and application below.

Storage:

The TREMproof 260, as well as the application equipment must be kept from freezing. It is best to store the TREMproof 260 drums on a pallet at an ambient temperature above 50°F. The application equipment must be kept above 40°F, to prevent the material inside the pump and hoses from freezing.

Application:

With regards to applying TREMproof 260, with or without calcium co-spray catalyst, the following instructions need to be followed in addition to our regular application instructions, when the temperature approaches subfreezing.

1. Once the application starts, do not stop. Freezing can occur in the application pump and hoses if the heated membrane is not constantly flowing.
2. Use of heat-assisted equipment (such as a heat exchanger) is strongly recommended if material is used in conjunction with a co-spray and ambient temperature is 40 F and above.
3. Use of heat-assisted equipment (such as a heat exchanger) is **REQUIRED** if material is not used in conjunction with a co-spray and ambient temperatures fall below 40 F.
4. **Note:** TREMproof 260 should never be applied to a substrate that has evidence of surface frost.

At these sub-freezing temperatures, the membrane essentially will freeze and will begin to cure as the temperature begins to rise above 32°F. It should be known that if a heavy rain occurs at this time wash out of the membrane may occur.

Please contact Tremco Technical Service at 866-209-2404 with any questions regarding this bulletin.

Technical Service Bulletin

ExoAir Fluids & TREMproof 260 Spraying Guide

The following information will address standard pump recommendations, application techniques, tip size, trouble shooting, and clean up. The information contained in this Technical Bulletin was generated with the help of the following guide:

The Primer: An Overview of Airless Sprayers

[http://wwwd.graco.com/Distributors/DLibrary.nsf/Files/321132D/\\$file/321132D.pdf](http://wwwd.graco.com/Distributors/DLibrary.nsf/Files/321132D/$file/321132D.pdf)

- **How to choose the pump that is right for your project?** Tremco has partnered with Spray Equipment out of Wichita, Kansas in order to service our customers spray equipment needs. Generally speaking our products require a pump that can handle a maximum psi of 3300 and through put of 2 gallons per minute. Spray Equipment knows the Tremco fluid applied products and can help you determine which pump will best suit your application needs. Spray equipment can also suggest how to modify an existing pump in order to spray Tremco fluid applied products. A pump flyer can be found online at the following address:

http://www.tremcosealants.com/filesshare/commercial_docs/PumpInformationEquipmentList.pdf

PUMP	EXOAIR 120SP	EXOAIR 120R	EXOAIR 220	EXOAIR 230	TREMPROOF 260
GH733	√	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√
GH833	√	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√
Spray Hog	√	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√
Ultra Max II 1095		√ - 5 gal only	√ - 5 gal only	√ - 5 gal only	
Ultra Max II 1595		√ - 5 gal only	√ - 5 gal only	√ - 5 gal only	
GMAX II 5900		√ - 5 gal only	√ - 5 gal only	√ - 5 gal only	
GMAX II 7900		√ - 5 gal only	√ - 5 gal only	√ - 5 gal only	
IronMan 500		√ - 5 gal only	√ - 5 gal only	√ - 5 gal only	

MAT 09/12

(gas only)					
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- **Should I buy a large sprayer or a smaller sprayer?** *The smaller units can only spray out of the 5 gallon pails of material where the larger sprayers can spray out of both the 55 gallon drums and the 5 gallon pails of material. Spray Equipment will help answer your questions in regards to equipment purchasing*
- **What fluid is stored inside a new pump prior to it being used for the first time? & how should it be flushed?**

Generally brand new pumps are stored with hydraulic oil in them. This oil needs to be completely flushed from the pump prior to using it with any ExoAir/TREMproof fluid. The hydraulic oil can be flushed using a ratio of Dawn Dish Detergent and water (1:4). The flushing should be done by using the recirculating line and not the spray hoses themselves – just place the prime tube in a trash bucket. If the hydraulic oil is not properly flushed it could cause the ExoAir/TREMproof fluids to get gummy inside the lines and pump.

- **Can you spray the ExoAir 120R – roller grade material?** *Yes, the ExoAir 120R can be sprayed with all the equipment listed in the pump flyer except you will need to add a 1:1 transfer pump to your equipment list for the larger pumps.*
- **Can you co-spray any of the Tremco fluid applied membranes?** *Yes, **TREMproof 260 and ExoAir 120SP/R** can be co-sprayed. These fluids require an accelerant that is mixed with water for co-spraying. The accelerant is calcium chloride (CaCl₂)(2%) and water (98%) solution. The accelerant is mixed at a 1 to 5 ratio (1 part accelerant to 5 parts of TREMproof 260 or ExoAir 120) at the spray nozzle. The accelerant solution can be prepared by mixing 77% CaCl₂ flakes with water as follows: 16.6 oz (~500g) of 77% CaCl₂ flakes per 5 gallons of water. The co-spray only accelerates the cure of the products, but is not required to cure the membrane. An increase in concentration of the CaCl₂ is not recommended as the products could cure too quickly prior to bonding to the substrate.*

***ExoAir 220 and ExoAir 230** can not be co-sprayed using the calcium chloride solution. We are actively working on a co-spray option for these products. Please contact Tremco Technical Service if you would like to co-spray ExoAir 220 or ExoAir 230 at 866-209-2404.*

It is extremely important when co-spraying to begin the work from the bottom up as the co-spray process causes the membrane to weep. When co-spraying the trigger of the gun must be fully engaged in order for both the emulsion and the co-spray to spray continuously and completely.

- **Can I use a Hudson Sprayer to mist the surface of the ExoAir 120SP/R or TREMproof 260 with the co-spray accelerant?** *Yes, you can use a Hudson Sprayer to mist the surface. This will have a similar affect on the membranes as co-spraying but just not as dramatic or instantaneous. When co-spraying you are accelerating the emulsion as it is atomized and making contact with the substrate. When you are misting the surface of the membrane with the CaCl₂ solution you are accelerating the surface cure of the membrane only. It is extremely important to **mist** the surface **at low pressures** because spraying the CaCl₂ at a higher pressure could cause sagging of the membrane.*

- **Where can I purchase the 77% CaCl₂ flakes that are required when co-spraying TREMproof 260 and ExoAir 120SP/R?** *The flakes can be purchased online at Gempler's. Flakes are preferred instead of pellets as the flakes dissolve easier in water than the pellets do. The following link will take you to the appropriate page.*

<http://www.gemplers.com/product/CACL2/50-lb-poly-bag-Calcium-Chloride-Flakes>

- **How do I spray the Tremco fluids in order to get proper coverage?** *The ExoAir Fluids and TREMproof 260 should be sprayed at the proper thickness, pressure and utilizing the proper tip size. Tip size will be addressed in the next question. The proper thickness of the products is listed in the table below.*

TREMCO PRODUCT	EXOAIR 120SP/R	EXOAIR 220	EXOAIR 230	TREMPROOF 260
Mil Thickness (wet/dry)	60/40	70/40	70/35	90/60

Proper mil thickness can be achieved by spraying in one lift or two. Temperature of both the material and the substrate may limit the mil thickness you are able to achieve with out causing sag. It is recommended to spray an area to test for sag. This can be achieved by spraying to the required full mil thickness and then striking a straight line horizontally through the wet material. Wait about 20-30 minutes. If the line that was struck stays straight then you can spray that amount with out causing sag. If the struck line has sagged, repeat the test with half the required mil thickness.

In order to spray the membranes in one lift you must also adjust the speed at which you are moving the spray gun. The slower you move the gun the more mil thickness you are able to achieve. The ExoAir 120SP and TREMproof 260 are recommended to be co-sprayed in order to build the appropriate wet mils in one lift. Each lift will require several passes to achieve the proper thickness. It is recommended to spray a 4ft² area from left to right and then from top to bottom in a cross hatch pattern to achieve optimal coverage.

The fluids should be gauged with a wet mil gauge often in order to ensure the proper mil thickness and coverage.

The pressure of the equipment will also affect the spray pattern. The lowest pressure that completely atomizes the membrane is suggested. Start at the lowest pressure setting and increase it slowly until the product is properly atomized. If the spray pattern fingers or tails, then the pressure should be increased.

- **What tip size is required to spray the TREMproof and ExoAir products?**



Breaking the code of the tip size:

517

First digit (5) when doubled, is the spray pattern fan width. A 517 has a 10" fan width when sprayed 12" from the substrate.

Last two digits are orifice size in the thousandths of an inch, a 517 has a 0.017 inch orifice

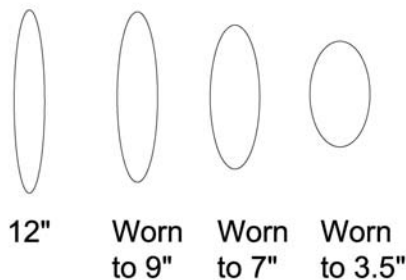
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There is a range of tip sizes that are acceptable when spraying the Tremco fluid applied membranes. The following table lists the tip sizes recommended for each product.

TREMCO PRODUCT	EXOAIR 120SP	EXOAIR 120R	EXOAIR 220	EXOAIR 230	TREMPROOF 260
TIP SIZE (emulsion/co-spray)	539/627	535-539/627	527-539/NA	527-539/NA	539/627

The viscosity of the product will affect the tip size selected and the viscosity of the product will increase as the product is stored in cooler temperatures. However the TREMPROOF 260 and ExoAir fluids should never be allowed to freeze. The smaller the last two digits (the orifice) the better the thicker more viscous product will spray. Always have a variety of tip sizes available in order to achieve optimum spray pattern. If the product is spraying and causing craters in the fluid, switching tips will help address that.

- **How do I know if the spray pattern is correct or if I need to replace a tip?** All spray tips will wear with normal use. When a tip wears, the size of the orifice increases and the fan width decreases. Tip wear affects the spray pattern. If the fan has lost 25% of its original size, then it is time to replace the spray tip. Continuing to spray would simply result in a poor quality spray job, and a substantial waste of membrane and labor. Spray the membrane 12" from substrate and evaluate the spray pattern to see if the pattern is consistent and has the fan pattern acceptable for that specific tip size. Remember as stated above the first number of the tip times 2 will give you the fan pattern that should be demonstrated 12" from the substrate.



For example, when a tip that had a 12" fan pattern is reduced to a 9" fan when worn, it will output 40% more membrane on 25% less area. This illustration shows the effects of a worn tip on a spray pattern.

Optimal coverage will be achieved with the proper tip size.

- **How do I clean the spray equipment?** The spray equipment should be flushed with a solution of Dawn dish detergent and warm water. The spray equipment should be flushed until the membrane is completely flushed and the pump discharge is clear. This should be done when switching from one ExoAir/TREMPROOF product to the next ExoAir/TREMPROOF product.

Citrus Cleaner can also be used to flush the equipment when using ExoAir 220 and ExoAir 230. Citrus Cleaner should never be used to flush ExoAir 120 or TREMPROOF 260.

Never use Mineral Spirits to flush the pump as it could cause the ExoAir/TREMPROOF emulsions to get gummy.

Never use Xylene to flush the pump as it could damage the spray lines and seals.

The tips and spray guards should be removed and cleaned with xylene or dawn/water solution and brushed lightly with a small brush at the end of each days work. Do not store the tip and guards in solvent as the solvents will adversely affect the seals of the tips and guards. The tips and guards may be stored in the dawn/water solution overnight.

- **How often should I flush the pump?** *According to Spray Equipment, the pump does not need to be flushed every night as long as you are planning on using it with in the next couple of days. Some contractors do not flush the product out of their spray rigs while they are on a project. Once the project is complete they will then flush and clean out their pumps. It is important to protect the ExoAir/TREMproof fluids from exposure to the air during the storage process as they will develop a skin on the surface. If spraying out of 5 gal buckets, protect the surface of the membrane by cutting an x in the lid and placing the immersion tube through the x to access the product. Wrap this area with damp towels in order to make sure that additional air doesn't get into the 5 gallon pail.*
- **If I am not going to use the pump right away after the completion of a project, what fluid should I have in the lines during storage?** *It is ok to store the pump with soapy water (Dawn Detergent and water) for about 30-60 days. During this storage time, be sure to not let the lines be exposed to freezing temperatures as the soapy solution could freeze. If freezing is an issue and you want to store it for longer than 60 days, then it is also ok to store the pump with a 50/50 solution of water and antifreeze. It is also ok to store the pump for longer periods of time with diesel fuel in the lines. This should not be diluted.*

Technical Service Bulletin

ExoAir Fluids & TREMproof 260 Spraying Guide

The following information will address standard pump recommendations, application techniques, tip size, trouble shooting, and clean up. The information contained in this Technical Bulletin was generated with the help of the following guide:

The Primer: An Overview of Airless Sprayers

[http://wwwd.graco.com/Distributors/DLibrary.nsf/Files/321132D/\\$file/321132D.pdf](http://wwwd.graco.com/Distributors/DLibrary.nsf/Files/321132D/$file/321132D.pdf)

- **How to choose the pump that is right for your project?** Tremco has partnered with Spray Equipment out of Wichita, Kansas in order to service our customers spray equipment needs. Generally speaking our products require a pump that can handle a maximum psi of 3300 and through put of 2 gallons per minute. Spray Equipment knows the Tremco fluid applied products and can help you determine which pump will best suit your application needs. Spray equipment can also suggest how to modify an existing pump in order to spray Tremco fluid applied products. A pump flyer can be found online at the following address:

http://www.tremcosealants.com/filesshare/commercial_docs/PumpInformationEquipmentList.pdf

PUMP	EXOAIR 120SP	EXOAIR 120R	EXOAIR 220	EXOAIR 230	TREMPROOF 260
GH733	√	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√
GH833	√	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√
Spray Hog	√	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√ (1:1 Transfer pump is required) Both 5 gal & 55 gal	√
Ultra Max II 1095		√ - 5 gal only	√ - 5 gal only	√ - 5 gal only	
Ultra Max II 1595		√ - 5 gal only	√ - 5 gal only	√ - 5 gal only	
GMAX II 5900		√ - 5 gal only	√ - 5 gal only	√ - 5 gal only	
GMAX II 7900		√ - 5 gal only	√ - 5 gal only	√ - 5 gal only	
IronMan 500		√ - 5 gal only	√ - 5 gal only	√ - 5 gal only	

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(gas only)					
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- **Should I buy a large sprayer or a smaller sprayer?** *The smaller units can only spray out of the 5 gallon pails of material where the larger sprayers can spray out of both the 55 gallon drums and the 5 gallon pails of material. Spray Equipment will help answer your questions in regards to equipment purchasing*
- **What fluid is stored inside a new pump prior to it being used for the first time? & how should it be flushed?**

Generally brand new pumps are stored with hydraulic oil in them. This oil needs to be completely flushed from the pump prior to using it with any ExoAir/TREMproof fluid. The hydraulic oil can be flushed using a ratio of Dawn Dish Detergent and water (1:4). The flushing should be done by using the recirculating line and not the spray hoses themselves – just place the prime tube in a trash bucket. If the hydraulic oil is not properly flushed it could cause the ExoAir/TREMproof fluids to get gummy inside the lines and pump.

- **Can you spray the ExoAir 120R – roller grade material?** *Yes, the ExoAir 120R can be sprayed with all the equipment listed in the pump flyer except you will need to add a 1:1 transfer pump to your equipment list for the larger pumps.*
- **Can you co-spray any of the Tremco fluid applied membranes?** *Yes, **TREMproof 260 and ExoAir 120SP/R** can be co-sprayed. These fluids require an accelerant that is mixed with water for co-spraying. The accelerant is calcium chloride (CaCl₂)(2%) and water (98%) solution. The accelerant is mixed at a 1 to 5 ratio (1 part accelerant to 5 parts of TREMproof 260 or ExoAir 120) at the spray nozzle. The accelerant solution can be prepared by mixing 77% CaCl₂ flakes with water as follows: 16.6 oz (~500g) of 77% CaCl₂ flakes per 5 gallons of water. The co-spray only accelerates the cure of the products, but is not required to cure the membrane. An increase in concentration of the CaCl₂ is not recommended as the products could cure too quickly prior to bonding to the substrate.*

ExoAir 220 and ExoAir 230 can not be co-sprayed using the calcium chloride solution. We are actively working on a co-spray option for these products. Please contact Tremco Technical Service if you would like to co-spray ExoAir 220 or ExoAir 230 at 866-209-2404.

It is extremely important when co-spraying to begin the work from the bottom up as the co-spray process causes the membrane to weep. When co-spraying the trigger of the gun must be fully engaged in order for both the emulsion and the co-spray to spray continuously and completely.

- **Can I use a Hudson Sprayer to mist the surface of the ExoAir 120SP/R or TREMproof 260 with the co-spray accelerant?** *Yes, you can use a Hudson Sprayer to mist the surface. This will have a similar affect on the membranes as co-spraying but just not as dramatic or instantaneous. When co-spraying you are accelerating the emulsion as it is atomized and making contact with the substrate. When you are misting the surface of the membrane with the CaCl₂ solution you are accelerating the surface cure of the membrane only. It is extremely important to **mist** the surface **at low pressures** because spraying the CaCl₂ at a higher pressure could cause sagging of the membrane.*

- **Where can I purchase the 77% CaCl₂ flakes that are required when co-spraying TREMproof 260 and ExoAir 120SP/R?** *The flakes can be purchased online at Gempler's. Flakes are preferred instead of pellets as the flakes dissolve easier in water than the pellets do. The following link will take you to the appropriate page.*

<http://www.gemplers.com/product/CACL2/50-lb-poly-bag-Calcium-Chloride-Flakes>

- **How do I spray the Tremco fluids in order to get proper coverage?** *The ExoAir Fluids and TREMproof 260 should be sprayed at the proper thickness, pressure and utilizing the proper tip size. Tip size will be addressed in the next question. The proper thickness of the products is listed in the table below.*

TREMCO PRODUCT	EXOAIR 120SP/R	EXOAIR 220	EXOAIR 230	TREMPROOF 260
Mil Thickness (wet/dry)	60/40	70/40	70/35	90/60

Proper mil thickness can be achieved by spraying in one lift or two. Temperature of both the material and the substrate may limit the mil thickness you are able to achieve with out causing sag. It is recommended to spray an area to test for sag. This can be achieved by spraying to the required full mil thickness and then striking a straight line horizontally through the wet material. Wait about 20-30 minutes. If the line that was struck stays straight then you can spray that amount with out causing sag. If the struck line has sagged, repeat the test with half the required mil thickness.

In order to spray the membranes in one lift you must also adjust the speed at which you are moving the spray gun. The slower you move the gun the more mil thickness you are able to achieve. The ExoAir 120SP and TREMproof 260 are recommended to be co-sprayed in order to build the appropriate wet mils in one lift. Each lift will require several passes to achieve the proper thickness. It is recommended to spray a 4ft² area from left to right and then from top to bottom in a cross hatch pattern to achieve optimal coverage.

The fluids should be gauged with a wet mil gauge often in order to ensure the proper mil thickness and coverage.

The pressure of the equipment will also affect the spray pattern. The lowest pressure that completely atomizes the membrane is suggested. Start at the lowest pressure setting and increase it slowly until the product is properly atomized. If the spray pattern fingers or tails, then the pressure should be increased.

- **What tip size is required to spray the TREMproof and ExoAir products?**



Breaking the code of the tip size:

517

First digit (5) when doubled, is the spray pattern fan width. A 517 has a 10" fan width when sprayed 12" from the substrate.

Last two digits are orifice size in the thousandths of an inch, a 517 has a 0.017 inch orifice

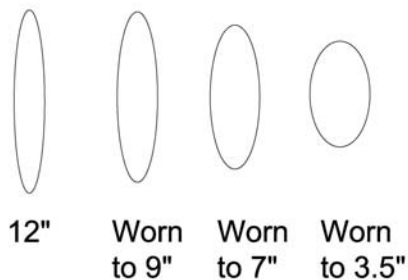
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There is a range of tip sizes that are acceptable when spraying the Tremco fluid applied membranes. The following table lists the tip sizes recommended for each product.

TREMCO PRODUCT	EXOAIR 120SP	EXOAIR 120R	EXOAIR 220	EXOAIR 230	TREMPROOF 260
TIP SIZE (emulsion/co-spray)	539/627	535-539/627	527-539/NA	527-539/NA	539/627

The viscosity of the product will affect the tip size selected and the viscosity of the product will increase as the product is stored in cooler temperatures. However the TREMPROOF 260 and ExoAir fluids should never be allowed to freeze. The smaller the last two digits (the orifice) the better the thicker more viscous product will spray. Always have a variety of tip sizes available in order to achieve optimum spray pattern. If the product is spraying and causing craters in the fluid, switching tips will help address that.

- **How do I know if the spray pattern is correct or if I need to replace a tip?** All spray tips will wear with normal use. When a tip wears, the size of the orifice increases and the fan width decreases. Tip wear affects the spray pattern. If the fan has lost 25% of its original size, then it is time to replace the spray tip. Continuing to spray would simply result in a poor quality spray job, and a substantial waste of membrane and labor. Spray the membrane 12" from substrate and evaluate the spray pattern to see if the pattern is consistent and has the fan pattern acceptable for that specific tip size. Remember as stated above the first number of the tip times 2 will give you the fan pattern that should be demonstrated 12" from the substrate.



For example, when a tip that had a 12" fan pattern is reduced to a 9" fan when worn, it will output 40% more membrane on 25% less area. This illustration shows the effects of a worn tip on a spray pattern.

Optimal coverage will be achieved with the proper tip size.

- **How do I clean the spray equipment?** The spray equipment should be flushed with a solution of Dawn dish detergent and warm water. The spray equipment should be flushed until the membrane is completely flushed and the pump discharge is clear. This should be done when switching from one ExoAir/TREMPROOF product to the next ExoAir/TREMPROOF product.

Citrus Cleaner can also be used to flush the equipment when using ExoAir 220 and ExoAir 230. Citrus Cleaner should never be used to flush ExoAir 120 or TREMPROOF 260.

Never use Mineral Spirits to flush the pump as it could cause the ExoAir/TREMPROOF emulsions to get gummy.

Never use Xylene to flush the pump as it could damage the spray lines and seals.

The tips and spray guards should be removed and cleaned with xylene or dawn/water solution and brushed lightly with a small brush at the end of each days work. Do not store the tip and guards in solvent as the solvents will adversely affect the seals of the tips and guards. The tips and guards may be stored in the dawn/water solution overnight.

- **How often should I flush the pump?** *According to Spray Equipment, the pump does not need to be flushed every night as long as you are planning on using it with in the next couple of days. Some contractors do not flush the product out of their spray rigs while they are on a project. Once the project is complete they will then flush and clean out their pumps. It is important to protect the ExoAir/TREMproof fluids from exposure to the air during the storage process as they will develop a skin on the surface. If spraying out of 5 gal buckets, protect the surface of the membrane by cutting an x in the lid and placing the immersion tube through the x to access the product. Wrap this area with damp towels in order to make sure that additional air doesn't get into the 5 gallon pail.*
- **If I am not going to use the pump right away after the completion of a project, what fluid should I have in the lines during storage?** *It is ok to store the pump with soapy water (Dawn Detergent and water) for about 30-60 days. During this storage time, be sure to not let the lines be exposed to freezing temperatures as the soapy solution could freeze. If freezing is an issue and you want to store it for longer than 60 days, then it is also ok to store the pump with a 50/50 solution of water and antifreeze. It is also ok to store the pump for longer periods of time with diesel fuel in the lines. This should not be diluted.*

Tremco Incorporated

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Global Sealants Division
Integrated Technical Solutions

Date: January 6, 2015

To: Distribution

From: Wes Hensley

Technical Service Bulletin No. S-08-27

Drainage/Protection Course Recommendations

The purpose of this bulletin is to educate and provide a quick reference for the use of the various drainage and protection courses available for application with Tremco's waterproofing membranes. In many instances, the Tremco TREMDrain Drainage mat may serve as both the protection and drainage medium, however, certain job site conditions or specifications may require a separate protection course, only a protection course, or both drainage and a protection course. Wherever possible, system performance may be improved and lengthened when both a drainage mat and protection course are installed in conjunction with a waterproofing membrane.

The following is a chart that lists general recommendations with regards to the waterproofing membrane and the drainage and/or protection course recommended to be used in the specified application. This is a general rule of thumb as any unusual job site conditions, deviations, or cross-reference questions can and should be called into technical service for further clarification..

Application: Back Filled Walls	TREMDrain	TREMDrain POLYMERIC FILM	TREMDrain 1000	TREMDrain 1000 POLYMERIC FILM	TREMDrain 2000	TREMDrain 2000 POLYMERIC FILM	TREMDrain S	TREMDrain 6600	TREMDrain QSP	TREMDrain DPI	TREMDrain Total Drain	Tremco Protection Mat	HDPE Protection Course	Tremco 2450	Tremco 2550/2560	PowerPlay Standard Smooth	PowerPlay Standard Course	Tremco 2178	Tremco 2190
Tremproof 201/60	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
Tremproof 250GC	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
Tremproof 260	•	•	•	•	•	•	•	•	•	•	•	•	•	•					

Application: Split Slab		TREMDrain	TREMDrain POLYMERIC FILM	TREMDrain 1000	TREMDrain 1000 POLYMERIC FILM	TREMDrain 2000	TREMDrain 2000 POLYMERIC FILM	TREMDrain S	TREMDrain 6600	TREMDrain QSP	TREMDrain DPI	TREMDrain Total Drain	Tremco Protection Mat	HDPE Protection Course	Tremco 2450	Tremco 2550/2560	PowerPly Standard Smooth	PowerPly Standard Course	Tremco 2178	Tremco 2190
Tremproof 201/60						•		•	•				•	•	•					
Tremproof 250GC			•		•	•		•	•				•	•	•					
Tremproof 6100			•		•	•			•				•	•	•	•	•	•		

Application: Planters		TREMDrain	TREMDrain POLYMERIC FILM	TREMDrain 1000	TREMDrain 1000 POLYMERIC FILM	TREMDrain GS	TREMDrain GS	TREMDrain 2000	TREMDrain 2000 POLYMERIC FILM	TREMDrain S	TREMDrain 3000	TREMDrain DPI	TREMDrain Total Drain	Tremco Protection Mat	HDPE Protection Course	Tremco 2450	Tremco 2550/2560	PowerPly Standard Smooth	PowerPly Standard Course	Tremco 2178	Tremco 2190
Tremproof 201/60						•	•	•			•				•	•					
Tremproof 250GC						•	•	•	•		•				•	•					
Tremproof 6100									•						•	•					

Application: Asphalt Overlays		TREMDrain	TREMDrain POLYMERIC FILM	TREMDrain 1000	TREMDrain 1000 POLYMERIC FILM	TREMDrain 2000	TREMDrain 2000 POLYMERIC FILM	TREMDrain S	TREMDrain QSP	TREMDrain DPI	TREMDrain Total Drain	Tremco Protection Mat	HDPE Protection Course	Tremco 2450	Tremco 2550/2560	PowerPly Standard Smooth	PowerPly Standard Course	Tremco 2178	Tremco 2190
Tremproof 6145																•	•	•	•

Please remember these are typical recommendations and Tremco has other drainage mats available for specific project or performance needs. Tremco strongly recommends the use of the TREMDrain Total-Drain system for backfilled wall applications. This chart is representative of our fluid applied waterproofing line.