

Section I - Building Components

3. Thorocoat for Exterior

PRODUCT DATA

9 09 97 23 Coatings for Concrete and Masonry

THOROCOAT®

Water-based, high-build, 100% acrylic waterproof coating

Description

Thorocoat® water-based, high-build, 100% acrylic waterproof coating for above-grade concrete, masonry, stucco and EIFS.

Yield

See chart on page 3.

Tilt-up wall applications:

Thorocoat® Smooth, Fine and Coarse can be applied in 1 coat at 60 – 80 ft²/gal (1.5 – 2.00 m²/L), achieving DFT of 7.5 – 10 mils (190 – 254 microns) for Smooth and 10 – 13 mils (254 – 329 microns) for Fine and Coarse textures. It is recommended that Thoro® CM Primer be applied in order to have a two-coat system, which ensures above grade waterproofing.

Actual coverage may vary depending on substrate texture and porosity. Rough textured surfaces may require additional coats to achieve the minimum film build. The objective is to obtain a pinhole free, consistent film build on all treated surfaces. BASF always recommends applying a test area to determine actual coverage. Apply in an unstretched, uniform manner.

Features

- Available in smooth, fine, and coarse textures
- Resists wind-driven rain
- Excellent adhesion
- Breathable
- UV resistance
- Carbon dioxide diffusion barrier
- Excellent hiding power
- Excellent color retention
- Freeze/thaw resistant
- Tough finish
- Recoatable
- VOC compliant
- Also available in algae resistant (A+) and perlite texture formulas

Benefits

- Design versatility
- Helps prevent water penetration into the substrate
- Bonds securely to substrate for long-term durability
- Allows water vapor to escape from the structure; prevents peeling and blistering
- Looks like new long term
- Protects embedded steel from corrosion
- Covers variations in substrate appearance
- Resists color fading
- Suitable for cold climates
- Resists erosion
- Easy and cost-efficient to maintain
- Environmentally friendly
- Versatility

Packaging

- 5 gallon (18.9 L) pails
- 30 gallon (114 L) drums (for factory tinted material only)

Color

Thorocoat® is available in 4 bases (pastel, medium, ultra and neutral) and 48 standard colors through the Elements color program. Color formulations are available through the electronic Thoro® Tint Manual. Custom colors are available upon request. For further information, please consult your local BASF distributor or representative.

Texture

Smooth, fine and coarse

Shelf Life

15 months when properly stored.

Storage

Store in unopened containers protected from freezing in a clean, dry area.

Where to Use

APPLICATION

- For protecting and decorating

LOCATION

- Vertical and overhead surfaces
- Exterior or interior
- Above grade

SUBSTRATE

- Concrete and masonry
- Cement plaster, stucco and EIFS



Technical Data

Composition

Thorocoat® contains water, acrylic emulsion, fillers and other proprietary ingredients

Test Data

THOROcoat® SMOOTH

PROPERTY	RESULTS	TEST METHODS
Density, lbs/gal (kg/L)	11.4 – 12.4 (1.37 – 1.49)	ASTM D 1475
Solids, %		ASTM D 5201
By weight	56.2	
By volume	38	
Viscosity, KU	102 – 110	ASTM D 562 (Stormer)
VOC content, lbs/gal (g/L)	0.90 (107)	ASTM D 3960

THOROcoat® FINE

PROPERTY	RESULTS	TEST METHODS
Density, lbs/gal (kg/L)	13.1 – 14.1 (1.57 – 1.69)	ASTM D 1475
Solids, %		ASTM D 5201
By weight	68.6	
By volume	49	
Viscosity, KU	117 – 125	ASTM D 562 (Stormer)
VOC content, lbs/gal (g/L)	0.57 (68)	ASTM D 3960

THOROcoat® COARSE

PROPERTY	RESULTS	TEST METHODS
Density, lbs/gal (kg/L)	13.2 – 14.2 (1.58 – 1.70)	ASTM D 1475
Solids, %		ASTM D 5201
By weight	69.9	
By volume	50	
Viscosity, KU	117 – 125	ASTM D 562 (Stormer)
VOC content, lbs/gal (g/L)	0.53 (63)	ASTM D 3960

THOROcoat® SMOOTH

PROPERTY	RESULTS	TEST METHODS
Resistance to wind-driven rain	Meets requirement – no water penetration	TT-C-555B
Accelerated weathering, 5,000 hrs	Passes	ASTM G 23, Type D
Visual color change, 5,000 hrs	Passes	ASTM D 1729
Chalking, 5,000 hrs	Passes	ASTM D 4214
Freeze/thaw resistance, 50 cycles	Passed	DOT Method A and B
Water-vapor permeance, perms	13	ASTM D 1653
Moisture resistance,	Meets requirement: no blistering, loss of adhesion, or discoloration	TT-C-555B

Test Data

THOROcoat® SMOOTH, CONTINUED

PROPERTY	RESULTS	TEST METHODS
Salt spray (fog) resistance, 300 hrs	Passed	ASTM B 117
Carbon-dioxide diffusion R (equivalent air-layer thickness), ft (m) Sc (equivalent concrete thickness), in (cm)	1,318 (402) 39 (100)	PR EN 1062-6
Flexibility, 1" mandrel	No cracking	ASTM D 1737
Dirt pick-up, % after 6 months exposure	92.02; passed	ASTM D 3719
Sand abrasion resistance, at 3,000 L	Passed	ASTM D 968 Method A
Impact resistance, at 30 in-lbs	Passed	ASTM D 2794
Fungus resistance	No growth Meets requirement	ASTM D 3273
Mildew resistance Aspergillus oryzae, 7 days Aspergillus niger, 21 days	No growth No growth	Fed Spec. TT-P-29 (Fed. Std. 141, Method 6152 and 6271.1)
Surface burning characteristics Flame spread Smoke Fuel contribution	1 4 7	ASTM E 84
Flash point, ° F (° C)	> 200 (93)	ASTM D 56 Tag Closed Tester

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Yield

TEXTURE	RATE, FT ² /GAL/COAT (M ² /L)	WET FILM, MILS (MICRONS)	DRY FILM, MILS (MICRONS)
Smooth	75 – 100 (1.84 – 2.46)	22 – 16 (559 – 406)	8 – 6 (203 – 152)
Fine	75 – 100 (1.84 – 2.46)	22 – 16 (559 – 406)	11 – 8 (279 – 203)
Coarse	75 – 100 (1.84 – 2.46)	22 – 16 (559 – 406)	11 – 8 (279 – 203)

How to Apply

Surface Preparation

1. Surface should be clean and sound. Concrete substrates should have a minimum 28 day cure and be free of all bond-inhibiting contaminants.
2. High-pressure water blast (or abrasive blast on hard, dense surfaces) surface to medium grit sandpaper texture (reference ICRI guide 03732 SP 3).
3. Repair any holes, spalled and damaged concrete with appropriate BASF Construction Chemicals repair materials. Remove any protruding concrete accessories and smooth out any irregularities.
4. Some stains may require chemical removal. Be sure to neutralize the compounds and rinse with clean water.
5. Remove any blisters or delaminated areas and sand edges to smooth rough areas and provide transition to old paint areas.
6. Check adhesion of old paint using ASTM D 3359, measuring adhesion by Tape Method A.
7. Treat cracks greater than 1/32" with (brand) Knife Grade or Brush Grade patching compound. Treat cracks larger than 1/4" as expansion joints and fill with appropriate BASF Construction Chemicals sealant.

CRACKS

1. Locate and properly prepare all cracks.
2. Clean and detail static hairline cracks caused by plastic or drying shrinkage and fill by a brush coat of Thorocoat® Smooth and allow to dry.
3. Clean and detail static cracks greater than 1/32" (0.8 mm) in width and fill with Thorolastic® Knife Grade or Brush Grade elastomeric patching material (see Form No. 1019113).
4. Treat cracks greater than 1/4 by 1/4" (6 by 6 mm) as standard sealant joints according to a reputable sealant manufacturer's instructions. Contact BASF Technical Service for recommendations.

Mixing Instructions

1. Mix Thorocoat® at slow speed with drill and mixing paddle to ensure uniform color and aggregate disbursement and to minimize air entrapment.
2. In multi-pail applications, mix the contents of each new pail into the partially used pail to ensure color consistency and smooth transitions from pail to pail.

Application

1. Thorocoat® is meant to be applied as a two-coat system, achieving a total dry-film thickness (DFT) of 12 – 16 mils (304 – 406 microns).
2. Apply Thorocoat® by brush, spray, roller, or spray-and-backroll. Spray apply Thorocoat® Coarse for best results.
3. Thorocoat® is designed as a high-build acrylic coating.
4. Maintain proper uniform wet-film thickness (WFT) during application to ensure the performance characteristics desired (see yield rates section).
5. Always work to a natural break and maintain a wet edge during application.
6. For uniformity of color and texture, application techniques must be consistent throughout the project. Inconsistent application techniques will produce texture or color variations.

ROLLER

1. Use a quality 1/2 – 1-1/4" nap roller cover (lamb's wool preferred).
2. Completely saturate the roller and keep it loaded with the coating to build the required mils. Never dry roll.
3. Roll the coating in a consistent fanlike pattern to achieve uniform mil thickness.
4. Cross roll to achieve uniform thickness and maintain a wet edge. Backroll in one direction as stroke variations may result in uneven color and texture.

BRUSH

1. Application by brush is recommended only for small inaccessible areas, e.g., on touch-ups.
2. Use a nylon brush only.

SPRAY

1. Equipment is available for spraying all grades of Thorocoat®. For fine and coarse textures, it is necessary to use a heavy-duty sprayer designed for the application of coatings that contain sand particles. Gun pressure should be around 30 psi (0.21 MPa). Contact Technical Service for further recommendations.
2. Backrolling after spray application is strongly recommended to achieve uniform texture and film thickness.

Clean Up

Clean all tools and equipment immediately with water. Cured material may be removed by mechanical means.

Drying Time

Times assume 70° F (21° C) and 50% relative humidity.

To touch: 1 – 2 hours

To recoat: 2 – 4 hours

To full cure: 5 days

Lower surface or air temperatures and higher relative humidity will extend the drying time.

For Best Performance

- Protect from freezing. If partially frozen, place containers in heated area and allow to gradually warm. Do not apply heat directly to containers.
- Do not apply when the temperature (substrate or ambient) is 40° F (4° C) or below or is expected to fall below 40° F (4° C) within 24 hours after application.
- Do not apply if rain is expected within 24 hours of application.
- Not for immersion service.
- Do not apply to horizontal traffic-bearing surfaces.
- Do not apply over moving cracks, control joints or expansion joints.
- Do not use as crack bridging coating; refer to Thorolastic® product data sheet.
- Do not apply to existing coatings that are not compatible. Perform appropriate adhesion tests.
- Apply a 4 by 4 ft (1.2 by 1.2 m) test area to verify acceptable color, texture and adhesion before proceeding with any project. The test method for measuring adhesion is ASTM D 3359, Measuring Adhesion by Tape, Method A. On the 0 – 5 scale, a minimum adhesion rating of 4A is required.
- Do not use solvents or thinners to reduce the material.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

THOROcoat®

Caution

Thorocoat® Coarse/Fine contains ethylene glycol and crystalline quartz silica.

Thorocoat® Smooth contains ethylene glycol, ester alcohol, crystalline quartz silica and zinc oxide.

Risks

May cause eye, skin, or respiratory irritation.

Ingestion may cause irritation. Repeated ingestion may cause kidney damage. Contains small amount of free respirable quartz which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

Precautions

Avoid contact with eyes, skin and clothing. Use with adequate ventilation. DO NOT take internally. Wash thoroughly after handling. Use impervious gloves, eye protection and if the TLV is exceeded or if used in a poorly ventilated area, use NIOSH/ MSHA approved respiratory protection in accordance with federal, state and local requirements. Keep container closed when not in use. All label warnings must be observed until container is commercially cleaned or reconditioned.

First Aid

Eye contact, flush thoroughly with water for at least 15 minutes. SEEK MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product contains materials listed by the state of California as known to cause cancer, birth defects, or other reproductive harm.

VOC Content

Thorocoat® Coarse/Fine: 63 – 68 g/L or 0.53 – 0.57 lbs/gal, less water and exempt solvents

Thorocoat® Smooth: 93-96 g/L, less water and exempt solvents.

**For medical emergencies only,
call ChemTrec (1-800-424-9300).**

Section I - Building Components

4. Thoroseal



The Chemical Company

PRODUCT DATA

7 07 16 00 **Cementitious
Waterproofing**

THOROSEAL®

Waterproof cement-based coating
for concrete and masonry

Description

Thoroseal® is a Portland-cement-based coating for concrete and masonry that resists both positive and negative hydrostatic pressure. Polymer-modified with Acryl 60®, Thoroseal® creates a low-maintenance and highly durable waterproof barrier.

Yield

225 ft²/50 lb (20.9 m²/22.7 kg) bag as a base coat at 1/16" (1.6 mm) dry-film thickness.

450 ft²/50 lb (41.8 m²/22.7 kg) bag as a topcoat at 1/32" (0.8 mm) dry-film thickness.

Coverage will vary depending on surface texture and porosity.

Packaging

THOROSEAL®

10 lb (4.5 kg) cans for Thoroseal® white and standard gray only

30 lb (13.6 kg) polyethylene-lined bags for Thoroseal® white and standard gray only

50 lb (22.7 kg) polyethylene-lined bags for Thoroseal® white, standard gray, all landscape colors and custom colors

60 lb (27.2 kg) pails for Thoroseal® white, standard gray, landscape colors, and custom colors

ACRYL 60®

1 quart (0.9 L) bottles

1 gallon (3.8 L) bottles

5 gallon (18.9 L) pails

30 gallon (113 L) drums

55 gallon (208 L) drums

Features

- Waterproof
- Resistant to both positive and negative hydrostatic pressure
- Breathable
- Compatible with high-performance coatings
- Aesthetically beneficial
- Aesthetically superior

Benefits

- Protects building interiors from dampness and moisture damage
- Suitable for use below grade interior and exterior and in water-treatment construction
- Allows interior moisture to escape without damaging coating
- Accepts a wide range of architectural coatings and textured finishes
- Hides minor surface defects and blemishes in architectural concrete
- Available in 10 landscape colors and in custom colors (with minimum order quantities)

Color

White and standard gray (this color is not uniform)

Custom and landscape colors are available for 5,000 lbs (2,268 kg) minimum order.

Ten landscape colors : bone, dijon, French vanilla, good earth, light khaki, Thoro® gray, Navajo white, parchment, pearl gray, and putty tan

Shelf Life

1 year when properly stored

Storage

Transport and store in unopened containers and keep in a clean, dry condition protected from rain, dew and humidity. Do not stack bags more than 2 pallets high. If dry onsite storage of bags is unavailable or if project is located in a very wet, humid climate zone, then specify Thoroseal® packaged in 60 lb (27.2 kg) metal pails. Store Acryl 60® in similar conditions. Do not allow Acryl 60® to freeze.

Where to Use

APPLICATION

- Alternative to mechanical finishing or rubbing of concrete
- Waterproofing basement and retaining walls
- Foundations
- Bridges and tunnels
- Water cisterns

LOCATION

- Vertical and light-pedestrian horizontal surfaces
- Interior and exterior
- Above and below grade

SUBSTRATE

- Cast-in-place and precast concrete
- Block, brick and porous stone



Technical Data

Composition

Thoroseal® contains cement, graded sand, and proprietary additives.

Test Data

PROPERTY	RESULTS	TEST METHODS
Initial Set , min, at 70° F (21° C), 50% rh	10	Lab Method
Final Set , at 70° F (21° C), 50% rh	90	Lab Method
Density , (cured), lbs/ft ³ (kg/m ³)	129 (2,080)	Lab Method
Positive resistance to hydrostatic pressure , hrs, at 200 psi (1.4 MPa), 461 head ft, air cured at 70° F (21° C), 50% rh	752 No leakage, no softening	CRD C 48, modified
Negative resistance to hydrostatic pressure , hrs, at 200 psi (1.4 MPa), 461 head ft, air cured at 70° F (21° C), 50% rh	664 Limited dampness	CRD C 48, modified
Water absorption , %, boiling water submersion at 24 hours	3.6	ASTM C 67 (Section 7.3)
Compressive strength , psi (MPa) 7 days 28 days	4,200 (29) 6,030 (42)	ASTM C 109
Flexural strength , psi (MPa) 7 days 28 days	360 (2.5) 1,027 (7)	ASTM C 348
Tensile strength , psi (MPa) 7 days 28 days	250 (2) 440 (3)	ASTM C 190
Modulus of elasticity , psi (MPa) 28 days	2.72 x 10 ⁶ (1.87 x 10 ⁶)	ASTM C 469
Artificial weathering , hrs Xenon Arc Carbon Arc	5,000 = No failure 500 = No failure	ASTM G 26 ASTM G 23
Adhesion strength , psi (MPa)	418 (2.9)	Test by tensile bond
Artificial weathering ,	No cracking, loss of adhesion, checking, or other defect	Atlas Type DMC weatherometer
Freeze/thaw resistance , 200 cycles	No change	ASTM C 666 (Procedure B)
Salt spray resistance , 300 hours	No defect	ASTM B 117
Carbon Dioxide (CO₂) , in (mm)	1/16 (1.6) Equivalent to 3/4" (19 mm) new concrete	Lab Method Diffusion
Permeance , perms (metric permeability)	12 (0.10698) 18 x 10 ³ resistance	ASTM E 96 (water-vapor transmission) Swedish standard SS-02-15-82

Test Data, continued

PROPERTY	RESULTS	TEST METHODS
Wind-driven rain , hrs	8 = excellent	Fed. Spec. TT-P-0035 (Para 4.4.7)
Coefficient of thermal expansion , in/in/° F (mm/mm/° C), at 28 days	6.99 x 10 ⁻⁶ (5 x 10 ⁻⁷)	ASTM C 531
Impact strength (Gardener impact tester)	No chipping	Fed. Spec. TT-P-0035 (Cement paints para. 3.4.8)
Hardness , (Barber Coleman Impressor) Requirement min = 30, max = 60		Fed. Spec. TT-P-0035 (para 4.4.9)
7 days	35	
14 days	47	
21 days	52	
Abrasion resistance , 3,000 L sand	Passed	Fed. Spec. TT-P-141B
Reflectance		ASTM D 2244 using Hunterlab D-25 meter
Gray Thoroseal®	64.2	
White Thoroseal®	88.1	
Fungus resistance , at 21 days	No growth; meets all requirements	Fed. Spec. TT-P-29B
Surface burning characteristics		ASTM E 84
Flame Spread	0	
Smoke developed	5	
Fire Propagation	Index = 1.5	BS476: Part 6:1981
Flame spread	Class 1	BS476: Part 7:1971

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

How to Apply

Surface Preparation

1. Surface preparation is extremely important for proper adhesion. Substrates must be sound and free of dust, dirt, laitance, paints, oils, grease, curing compounds or any other contaminants. Verify substrate has properly cured. Concrete should obtain 80% of design strength, typically achieved within 3 – 14 days. If efflorescence is present, mechanically remove it before proceeding. For extreme cases where this is not adequate, contact Technical Service.
2. Patch all holes and cracks before installation.
3. Relieve hydrostatic pressure in concrete block with weep holes.
4. Roughen or brush blast extremely smooth surfaces such as precast and cast-in-place concrete to ensure good mechanical adhesion of Thoroseal®.

Mixing

1. Mix Thoroseal® with a mixing liquid consisting of a blend of Acryl 60® diluted with water. Maximum dilution ratio is 1 part Acryl 60® to 3 parts water. Approximately 6 quarts of mixing liquid is needed per 50 lbs of Thoroseal® powder. Up to 2 additional quarts of mixing liquid may be added when using as a rubbing compound.
2. For best results, mechanically mix Thoroseal® with a slow-speed drill and mixing paddle. Gradually add the powder to the mixing liquid while drill is running.
3. When properly blended, Thoroseal® will have the lump-free consistency of smooth, heavy batter.
4. Allow the Thoroseal® and Acryl 60® mixture to rest undisturbed for a minimum of 10 minutes to fully wet out all the powder. Then remix the wet mixture and apply. A small amount of mixing liquid can be added to this remixing.
5. Pot life is 60 – 90 minutes at 70° F (21° C). At high temperatures and low relative humidity, pot life can be significantly less.

Application

1. Apply Thoroseal® with a Thoro® brush or broom or equivalent stiff fiber brush or by textured spray equipment. Spray applications of the first coat require back brushing or brooming to properly fill voids and achieve uniformity.
2. Completely dampen the substrate with water before application starts. Do not saturate the substrate, but keep it cool and damp throughout the application.
3. It is essential to work first coat thoroughly into the substrate to completely fill and cover all voids, holes and nonmoving cracks. Finish with a horizontal stroke for an even coat.
4. Allow to cure 24 hours, then apply the second coat and finish with a vertical stroke. Above grade, the second coat can be replaced with a Thoro® high-build architectural coating to achieve better color uniformity.
5. On block or masonry walls, allow 5 – 7 days before applying second coat to eliminate joint read through.

Specific Applications

Above-grade interior or exterior applications in positive pressure situations (direct contact with rain or standing water with a low head of pressure)

1. A 50 lb (22.7 kg) bag of Thoroseal® will provide the following coverage at the designated material usage.

Recommended coverage:

- First Coat: 2 lbs/yd² (1.1 kg/m²) = 225 ft²/50 lb bag (20.9 m²/22.7 kg bag)
- Second Coat: 1 lb/yd² (0.54 kg/m²) = 450 ft²/50 lb bag (41.8 m²/22.7 kg bag)
- Total: 3 lbs/yd² (1.6 kg/m²), cured nominal thickness of 1/16" (1.6 mm).

Coverage will vary depending on surface texture and porosity.

2. A 3 lbs/yd² (1.6 kg/m²) application rate does not eliminate surface irregularities such as struck mortar joints. To hide surface irregularities, spray and back-brush a base coat of Thoroseal® at 2 lbs/yd² (1.1 kg/m²) and allow it to cure for 5 – 7 days. Then spray apply and back trowel a topcoat of Thoroseal® Plaster Mix (see Form No. 1019908) at an application rate of 9 lbs/yd² (4.9 kg/m²).

BELOW-GRADE INTERIOR APPLICATIONS

1. The standard application is 3 lbs/yd² (1.6 kg/m²).
2. For high hydrostatic pressure conditions (over 15 psi [0.10 MPa]), increase application rate to 4 lbs/yd² (2.2 kg/m²) and waterproof from the positive side wherever possible.

BELOW-GRADE EXTERIOR APPLICATIONS

1. Use Thoroseal® Foundation Coating (see Form No. 1019907) For high hydrostatic pressure conditions (over 15 psi [0.10 MPa]), apply a base coat of Thoroseal® Foundation Coating at 2 lbs/yd² (1.1 kg/m²) and allow to cure for 5 – 7 days.
2. Then apply a topcoat of Thoroseal® Plaster Mix at 12 lbs/yd² (6.5 kg/m²). A steel trowel finish is recommended.
3. For both below-grade interior and below-grade exterior applications where water might move between vertical walls and slab or footer, it is recommended to cut out and place a Waterplug® cove at the wall and floor junction prior to the application of the Thoroseal® base coat.

4. Thoroseal® can be covered with extruded polystyrene insulation board during the second coat application. The board must be fully coated with Thoroseal® and embedded into the still-wet coating already in place on the walls. Exercise care when placing the coated board because it should not be moved or slipped. Once placed, do not move the board. After curing, prepare the above-grade portions of the boards by roughening or removing the surface skin and then coating with Thoroseal® to protect them from UV light degradation.

WATERPROOFING POTABLE WATER TANKS OR RESERVOIRS

1. Install Thoroseal® as directed in the general Application instructions.
2. After Thoroseal® has fully cured, wash down the Thoroseal® surface with saline solution (salt brine, 1 lb salt per 1 gallon water).
3. Leave saline solution on the entire Thoroseal® surface for at least 24 hours.
4. Rinse off saline solution completely. If needed, reapply saline solution until final rinse water is completely clean and clear.

Color Uniformity

With any cementitious product, such as Thoroseal®, it may be difficult to achieve color uniformity due to weather and substrate variability. For this reason, it may be necessary to apply a topcoat of a Thoro® architectural coating.

Clean Up

Promptly clean hands and all tools with warm water while product is still wet. Cured material may only be removed mechanically.

For Best Performance

- Thoroseal® must be modified with Acryl 60® to achieve the properties listed in the technical data section.
- Do not apply to substrates with active water leaks or moving cracks; patch all leaking static cracks and holes with Waterplug®. Repair any other nonmoving cracks or voids with the appropriate Thoro® repair product and repair all moving cracks or voids with appropriate sealant.
- Maintain or place expansion and control joints as necessary.

- Do not apply in rain or when rain is expected within 24 hours. Do not apply above 90° F (32° C) or below 40° F (4° C) or when temperatures are expected to fall below 40° F (4° C) within 24 hours. For hot and cold temperature applications, store Thoroseal®, Acryl 60® and water at 50° F (10° C) to 70° F (21° C) before use.
- Hot substrates will effect working time and material strength.
- Variations between inside and outside temperatures may result in condensation on below-grade walls treated with Thoroseal®. This can be alleviated by assuring that adequate ventilation exists.
- Windy, dry or hot conditions may require rewetting of Thoroseal® during cure and the use of polyethylene barriers.
- Before specifying Thoroseal® for water-retaining structures, conduct tests to determine water quality. Thoroseal® is not intended for continuous contact with acid or sulfate-containing water. Very soft water will have an adverse effect on Thoroseal®.
- Service temperatures: immersion, up to 140° F (60° C); cleaning water, up to 200° F (93° C); dry air, up to 220° F (104° C).
- On all projects, it is recommended that a sample be prepared on site and approved prior to the commencement of the work. The site sample should confirm the color, texture and workmanship required until the job is finished and accepted. Retain the sample until final approval is secured.
- Allow Thoroseal® to cure 7 – 10 days before immersion in water.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

THOROSEAL®

Warning!

Thoroseal® contains Portland cement; silica, crystalline quartz; iron oxide; magnesium oxide; limestone; gypsum; calcium hydroxide; calcium oxide and anhydrite.

Risks

Product is alkaline on contact with water and may cause injury to skin or eyes. Ingestion or inhalation of dust may cause irritation. Contains small amount of free respirable quartz which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. Avoid contact with skin, eyes and clothing. Prevent inhalation of dust. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/ MSHA approved respiratory protection in accordance with applicable federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product contains material listed by the state of California as known to cause cancer, birth defects, or other reproductive harm.

VOC Content

0 lbs/gal or 0 g/L, less water and exempt solvents.

**For medical emergencies only,
call ChemTrec (1-800-424-9300).**

**BASF Construction Chemicals, LLC –
Building Systems**

889 Valley Park Drive
Shakopee, MN, 55379

www.BuildingSystems.BASF.com

Customer Service 800-433-9517
Technical Service 800-243-6739



LIMITED WARRANTY NOTICE Every reasonable effort is made to apply BASF exacting standards both in the manufacture of our products and in the information which we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, BASF MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and BASF shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the BASF Technical Manager.

This information and all further technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights. In particular, BASF disclaims all CONDITIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. BASF SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. BASF reserves the right to make any changes according to technological progress or further developments. It is the customer's responsibility and obligation to carefully inspect and test any incoming goods. Performance of the product(s) described herein should be verified by testing and carried out only by qualified experts. It is the sole responsibility of the customer to carry out and arrange for any such testing. Reference to trade names used by other companies is neither a recommendation, nor an endorsement of any product and does not imply that similar products could not be used.

For professional use only. Not for sale to or use by the general public.

Form No. 1019906 9/07

Printed on recycled paper including 10% post-consumer fiber.

© 2007 BASF
Printed in U.S.A.

Section I - Building Components

5. Tremco Dymonic Joint Sealant

TREMCO® Dymonic®

Low Modulus Expansion Joint Sealant

Product Description:
Dymonic is a high-performance, low-modulus, one-component, moisture-curing, modified polyurethane joint sealant.

Basic Uses:
Dymonic is specifically developed for sealing dynamically moving joints such as: expansion and control joints, precast concrete panel joints, tilt-up panel joints, curtain wall joints and perimeter caulking (window, doors, panels, and frames, etc). Dymonic exhibits tenacious adhesion which will not diminish over product life.

Limitations:

- Do not apply over damp or contaminated surfaces.
- Use with adequate ventilation.

Packaging:

1/12 gallon (300mL) Cartridges,
20 oz. (600mL) Sausages, 2 (7.6 L)
and 5 gallon (18.9 L) pails and
55 gallon (208.2 L) drums.

Standard Colors:

White, Precast White, Off White
Limestone, Graystone, Aluminum
Stone, Anodized Aluminum, Ivory,
Beige, Buff, Redwood Tan, Light
Bronze, Bronze, Black, Hartford
Green, and Forest Green.

Applicable Standards:

Conforms to U.S. Federal
Specification TT-S-00230C, Type II,
Class A and ASTM C920, Type S,
Grade NS, Class 25 Use NT, M, A and
O, CAN/CGSB 19.13-M87.

INSTALLATION

Joint Design:

May be used in any vertical or horizontal joint design in accordance with accepted architectural/engineering practice. Joint width should be 4 times anticipated movement, but not less than 1/4 inch (6.4mm) wide.

Dimensions:

For joints 1/4 inch (6.4mm) to 1/2 inch (12.7mm) wide, the width to depth ratio should be equal. Joints 1/2 inch (12.7mm) wide or greater should have a sealant depth of 1/2 inch (12.7mm). Minimum joint size is 1/4 inch by 1/4 inch (6.4mm by 6.4mm).

Surface Preparation:

For good adhesion, the joint interface must be sound, clean and dry. Depending on the substrates, or presence of form release agents, masonry waterproofing, dust, loose

mortar or laitance, architectural paints or finishes, the joint surface may require a thorough wire brushing, grinding, sandblasting, solvent washing and/or primer.

Tooling & Cleaning:

Tooling is recommended immediately after application to insure firm, intimate contact with the joint interface. Dry tooling is preferred. Cleaning can be accomplished with Xylol or Toluol while sealant is in an uncured state.

Joint Backing-

Bond Breaking Tape:

Closed cell polyethylene backer rods are preferred as joint backing to control depth of sealant bead. Where depth of joint will prevent use of joint backing, an adhesive backed polyethylene tape should be installed to prevent three-sided adhesion. Joint backing must be dry at time of sealant application.



Application:

Dymonic is easy to apply with conventional caulking equipment. Fill joint completely with a proper width-to-depth ratio.

Maintenance:

Damaged sealant can be repaired. Consult your Tremco Distributor or Representative for repair procedures.

Availability:

Immediately available from your local Tremco Field Representative, Tremco Distributor or Tremco Warehouse.

Warranty:

Tremco warrants its Sealants to be free of defects in material, but makes no warranty as to appearance or color. Since method 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 Sealants. Tremco's sole obligation shall be, at its option, to replace, or to refund the purchase price of the quantity of Sealant proved to be defective and Tremco shall not be liable for any loss or damage.

TYPICAL PHYSICAL PROPERTIES

ASTM C920 TT-S-00230C	Requirement	Dymonic Results
Rheological Properties at 40 and 122°F. (4.4 and 50°C.)	3/16" (4.8mm) Maximum Flow No Deformation	0 None
Extrusion Rate	45 Seconds Maximum	5
Hardness Properties	25-50	25
Weight Loss	Less than 10%	Passes
Tack Free Time	Tack Free 72 Hours Maximum	Passes
Stain & Color Change	No Visible Change No Stain	None None
Durability-Cyclic Movement Adhesion & Cohesion	1-1/2 sq. in. (9.7 cm ²) Max Total Bond Loss	Passes
Adhesion-in-Peel	Not less than 5 pli (22N) Less than 25% Bond Loss	Concrete-20-28 pli (89-125N) No Adhesion Loss
Effects of Accelerated Weathering	No cracks greater than #2 on U.V. and Cold Temperature Bond Test	Passes



For MSDS and Spec Data Sheets,
Call our 24 Hour Fax-Back Line:

1-800-551-2806

or visit our website:

www.tremcosealants.com

TREMCO

Sealant/Weatherproofing Division

3735 Green Road • Beachwood, Ohio • 44122 • Phone: (216) 292-5000 • (800) 321-7906
220 Wicksteed Avenue • Toronto, ON M4H 1G7 • Phone: (416) 421-3300 • (800) 363-3213



MATERIAL SAFETY DATA SHEET

3735 GREEN ROAD
BEACHWOOD, OHIO 44122-8068

TELEPHONE: (216)292-5000

EMERGENCIES: (216)765-6727 8:30-5:00 EST
AFTER HOURS: CHEMTREC (800)424-9300

SECTION 1

Order Code: 950807 323

Product Name: DYMONIC - VARIOUS COLORS
Chemical Name:
Chemical Family: Sealant
Product Code: 950-8XX Date Prepared: 03-JUN-03
MSDS Preparer: R.A.MIKOL Replaces Date: 24-MAY-00

Other Applications:

THIS MATERIAL SAFETY DATA SHEET (MSDS) APPLIES TO THE FOLLOWING:
950-801(BRONZE),950-802(BLACK),950-803(OFF-WHITE),950-804(REDWOOD TAN)
950-806(WHITE),950-808(BEIGE),950-809(LIGHT BEIGE),
950-811(PRE-CAST WHITE),950-824(HARTFORD GREEN),950-851(ALUMINUM/STONE),
950-858(IVORY),950-878(ANODIZED ALUMINUM),& OTHER COLORS

Section 2 - Molecular Composition

Common Name and Chemical Name Exposure Limits	Weight %	CAS Number
POLYURETHANE POLYMER OSHA:TWA - STEL - ACGIH:TWA - STEL -	35.0-40.0	Trade Secret
CALCIUM CARBONATE (LIMESTONE) OSHA:TWA 15 mg/M3 STEL - ACGIH:TWA 10 mg/M3 STEL -	10.0-15.0	1317-65-3 (total dust, 5mg/M3 respirable fraction) (total dust, no asbestos, <1% SiO2)
CALCIUM SULFATE OSHA:TWA 15 mg/M3 STEL - ACGIH:TWA 10 mg/M3 STEL -	10.0-15.0	7778-18-9 (total dust, 5mg/M3 respirable fraction) (total dust, no asbestos, <1% SiO2)
DIPROPYLENE GLYCOL DIBENZOATE ** OSHA:TWA - STEL - ACGIH:TWA - STEL -	7.0-13.0	27138-31-4
MODIFIED CASTOR OIL OSHA:TWA 15 mg/M3 STEL - ACGIH:TWA 10 mg/M3 STEL -	5.0-10.0	Trade Secret (total nuisance dust) (total nuisance dust)
KAOLIN (CLAY) OSHA:TWA 10 mg/M3 STEL - ACGIH:TWA 2.00 mg/M3 STEL -	1.0-5.0	1332-58-7 (total dust, 2mg/M3 respirable fraction) (total dust, no asbestos, <1% SiO2)
TOLUENE (METHYLBENZENE) OSHA:TWA 100 ppm STEL 150 ppm ACGIH:TWA 50 ppm STEL -	1.0-5.0	108-88-3 (skin)
POLYAMINE OSHA:TWA - STEL - ACGIH:TWA - STEL -	1.0-5.0	Trade Secret
WHITE MINERAL OIL OSHA:TWA 5 mg/M3 STEL - ACGIH:TWA 5 mg/M3 STEL 10 mg/M3	1.0-3.0	8042-47-5 (mist) (mist)
PETROLEUM NAPHTHA (MINERAL SPIRITS) OSHA:TWA 400 ppm STEL - ACGIH:TWA 100 ppm STEL -	1.0-3.0	64742-88-7
TITANIUM DIOXIDE OSHA:TWA 10 mg/M3 STEL - ACGIH:TWA 10 mg/M3 STEL -	1.0-5.0	13463-67-7 (total dust, no asbestos, <1% SiO2)
DIISODECYL PHTHALATE OSHA:TWA - STEL - ACGIH:TWA - STEL -	0.5-2.0	26761-40-0

CRYSTALLINE SILICA (QUARTZ)				0.10-0.2	14808-60-7
OSHA:TWA	-	STEL	-	(respirable dust)	
ACGIH:TWA	0.050mg/M3	STEL	-	(respirable dust)	
CARBON BLACK				0.0-3.0	1333-86-4
OSHA:TWA	3.50 mg/M3	STEL	-		
ACGIH:TWA	3.50 mg/M3	STEL	-		
IRON OXIDE				0.1-2.0	1309-37-1
OSHA:TWA	10 mg/M3	STEL	-	(dust,fume as Fe)	
ACGIH:TWA	5 mg/M3	STEL	-	(fume as Fe)	

** NOTE: This ingredient may be replaced with the following:

BUTYL BENZYL PHTHALATE				10.0-15.0	85-68-7
OSHA:TWA	5 mg/M3	STEL	-		
ACGIH:TWA	5 mg/M3	STEL	10 mg/M3		

If so, the change will be noted on the plunger

Section 3 - Hazards Identification

Emergency Overview:

Various colored pastes. Can cause headache, dizziness, nausea, drowsiness, stupor, irritation to respiratory system. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention immediately.

Potential Hlth Effect/Rte of Entry:

Inhalation:

May cause respiratory irritation, vertigo, nausea, narcotic effects, liver effects, jaundice, and other central nervous system effects including death.

Eyes:

Vapors and liquid may cause irritation.

Ingestion:

May cause mouth, esophageal, and gastrointestinal irritation, and narcotic and CNS effects. Aspiration into the lungs during swallowing or vomiting can cause lung irritation and damage and can be fatal.

Skin:

May cause defatting, irritation, dermatitis, burns, and liver effects and jaundice if absorbed at concentrations associated with nausea.

Aggravated Medical Conditions:

Pre-existing eye, skin and respiratory disorders may be aggravated by exposure.

Acute Health Effects:

See effects described above.

Chronic Health Effects:

Warning! Deliberate misuse by concentrating and inhaling the contents may cause brain or nervous system damage, hearing loss, embryo/fetal injury, and birth defects, and may be fatal. Alcohol consumption may exacerbate the effects of overexposure. Prolonged or repeated contact/exposure to toluene may cause defatting, drying, cracking, irritation, and burns of the skin, CNS effects described above, heart muscle sensitization and arrhythmia, hearing loss, and brain, liver, kidney, and respiratory tract damage. Maybe harmful to the human fetus based on animal tests and limited epidemiology data. Prolonged or repeated exposure to mineral spirits (petroleum naphtha or stoddard solvent) may cause the defatting, irritation, dermatitis, narcotic and CNS effects described above, liver effects, and jaundice. Kidney and lung effects have been noted in some animal species. Prolonged or repeated exposures (orally and by inhalation) of butyl benzyl phthalate

(BBP) to rats produced decreased body weights, spleen and sex organ changes, increased liver and kidney weights, reduced food consumption and effects on the liver, testes and pancreas. Birth defects have been reported in mice and rats at dose levels of BBP that produce significant toxicity in the mother and offspring. However, birth defects have not been observed in rabbits. Evidence of the carcinogenicity of BBP has been mixed. An initial NTP study of BBP effects has reported an increased incidence of mononuclear cell leukemias in female rats, a commonly occurring spontaneous disease in this strain, but no increase in tumors in mice. However, a repeat study has not found an increase in leukemias, although a increase in kidney and bladder lesions in females and in pancreatic tumors in males was noted. Furthermore, a concurrent study that restricted diet also has not revealed any increase in tumors in male and female rats. Numerous studies also have indicated that BBP is not genotoxic. Inhalation of crystalline silica (quartz) can cause cancer based on animal data, and IARC concludes sufficient evidence in humans (Group 1). Prolonged and repeated overexposure to free crystalline silica dust above the TLV level may cause scarring of the lungs with cough and shortness of breath. A delayed lung injury, silicosis may result from breathing free silica. No serious health effects have been established in man when exposed to carbon black. Inflammation, lung fibrosis, and tumors have been observed in animals at levels which overload lung clearance mechanisms. Carbon black contains varying amounts of polynuclear aromatic compounds (PNA's) which have been found to cause cancer in animals. Solvent extracts of carbon black are carcinogenic to the skin of mice. It is classified by IARC to be a known animal carcinogen and a possible human carcinogen (Group 2B). Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Section 4 - First Aid Measures

Inhalation:

Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention immediately.

Eyes:

Flush immediately with running water for 15 minutes, lifting the upper and lower lids occasionally. Get medical attention immediately.

Ingestion:

Get medical attention immediately.

Skin:

Wash area of contact thoroughly with hand cleaner followed by soap and water. If irritation, rash or other disorders develop, get medical attention immediately.

Notes to Physician:

N/A

Section 5 - Fire Fighting Measures

Flash Point:

N/A

Method:

N/A

Lower Flammability Limit: Not Established

Upper Flammability Limit: Not Established

Autoignition Temperature: Not Established

Extinguishing Media:

If water fog is ineffective, use carbon dioxide, dry chemical or foam.

Fire and Explosion Hazards:

Never use welding or cutting torch on or near container (even empty).

Product, residue or vapor may ignite. See Section 7 for additional precautions.

Special Fire Fighting Procedures:

During a fire, personnel at the scene are to prevent exposure to fumes using accepted fire fighting techniques.

Fire Fighting Equipment:

N/A

Other Precautions:

Hydrocyanic acid can form.

Section 6 - Accidental Release Measures

Release Response Overview:

Remove sources of ignition immediately. Ventilate to reduce the airborne contaminant concentration below the exposure limit in Section 2 of the MSDS. Absorb spill in sand, earth or other suitable material. Transfer to appropriate container for disposal.

Section 7 - Handling and Storage

Handling and Storage Precautions:

Store under normal warehouse conditions below 80F. Prevent inhalation of vapor, ingestion, and contact with skin and eyes. Keep container closed when not in use. Precautions also apply to emptied containers. Change soiled workclothes frequently. Clean hands thoroughly after handling. Personal protective equipment must be worn during maintenance or repair of contaminated mixer, reactor, or other equipment.

Section 8 - Exposure Controls/Personal Protection

Respiratory:

Wear appropriate, properly fitted NIOSH/MSHA approved respirator, as directed by the manufacturer, when the airborne contaminant level(s) exceed the exposure limits indicated in Section 2 of the MSDS.

Skin:

Protect hands with impervious rubber gloves and wear typical full cover clothing. Prevent contact with skin.

Eyes:

Wear suitable safety eyewear.

Face:

Not required.

Engineering:

Use local exhaust when the general ventilation is not sufficient to keep the airborne contaminant concentration below the exposure limit in Section 2 of the MSDS.

Section 9 - Physical and Chemical Properties

Odor/Appearance:	SLIGHT/ VARIOUS COLORED PASTE
Color:	VARIOUS
Physical State:	PASTE
pH:	N/A
Vapor Pressure:	N/A
Vapor Density:	>1
Boiling Point:	N/A
Melting Point:	N/A
Freezing Point:	N/A
Solubility in Water:	Negligible
Specific Gravity:	1.28
% Volatile Weight:	7.2

Section 10 - Reactivity/Stability

Stability:

Stable

Incompatible Products:

Avoid contact with strong oxidizing agents.

Conditions to Avoid Polymerization:

Hazardous polymerization will not occur.

Section 11 - Toxicological Information

Eyes: SEE SECTION 3
Ingestion: " " "
Inhalation: " " "
Skin: " " "
Subchronic: " " "
Chronic: " " "

Section 12 - Ecological Information

Ecotoxicological Data: N/A
Chemical Fate: N/A

Section 13 - Disposal Considerations

RCRA Class:
D018 - HAZARDOUS WASTE CONTAINING BENZENE < 0.0002% (RQ = 10.0 LB)
Disposal Method:
Subject to hazardous waste treatment, storage, and disposal requirements
under RCRA. Incinerate at EPA approved facility or dispose of in compliance
with federal, state and local regulations.
EPA Reportable Quantities

N/A

Section 14 - Transportation Data

DOT Shipping Name: NOT REGULATED
DOT Hazard Class:
DOT Label:
UN/NA Number:
Packing Group:
Special Provisions:
Packaging

Exceptions:
Non-Bulk:
Bulk:
Quantity Limitations

Passenger Aircraft or Railcar:
Cargo Aircraft:
Vessel Stowage Requirements

Vessel Stowage:
Other Stowage:
Transportation Notes: N/A

Section 15 - Regulatory Information

TSCA Status: On the TSCA Inventory
OSHA Status: Considered hazardous based on the following criteria:
Irritant
Target Organs

Liver
Kidney
Nerve
Reproductive
Lung
Skin
Eye
HEART

OSHA Hazardous Components	CAS Number
KAOLIN (CLAY)	1332-58-7
CALCIUM CARBONATE (LIMESTONE)	1317-65-3
CALCIUM SULFATE	7778-18-9
* CRYSTALLINE SILICA (QUARTZ)	14808-60-7
* CARBON BLACK	1333-86-4
TITANIUM DIOXIDE	13463-67-7
IRON OXIDE	1309-37-1
* WHITE MINERAL OIL	8042-47-5
TOLUENE (METHYLBENZENE)	108-88-3

* - CHEMICAL IS LISTED AS AN IARC, NTP, OSHA, or ACGIH CARCINOGEN

Compliance Quantities

N/A

SARA 311 Ratings

Immediate Health Hazard: Y
Delayed Health Hazard: Y
Fire Hazard: Y
Reactivity Hazard: N
Sudden Release of Pressure Hazard: N

SARA 313 Ingredients

CAS Number

TOLUENE (METHYLBENZENE) 108-88-3

Proposition 65 Ingredients

Chemicals known to the State of California to cause cancer,
birth defects and/or other reproductive harm.

CAS Number

CRYSTALLINE SILICA (QUARTZ) 14808-60-7
TOLUENE (METHYLBENZENE) 108-88-3

Section 16 - Other Information

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 HIS OWN INVESTIGATION OF COMPLIANCE WITH APPLICABLE REGULATIONS, INCLUDING THE SAFE USE OF THE PRODUCT UNDER EVERY FORESEEABLE CONDITION.