Atlas Minerals & Chemicals, Inc.

DATA SHEET

3-61PI (1-98)
Supersedes 3-61PI (1-93)

THIOMENT Joint Sealant

DESCRIPTION
THIOMENT is a chemical resistant, expansion joint sealant.

TYPICAL USES
THIOMENT is an expansion joint sealant for quarry tile, brick, concrete and resinous floor topping installations. It can also be used as a sealant between substrates and ferrous, galvanized or aluminum metal structures, such as drains and grating seats. THIOMENT and THIOMENT Vertical Grade are excellent for outdoor service conditions and can be installed at temperatures as low as 35°F (2°C).

CHEMICAL RESISTANCE
THIOMENT is resistant to most solvents including aliphatic and aromatic hydrocarbons, as well as alkaline solutions and dilute acids. Refer to the chemical resistance chart for specific information.

PACKAGING AND COVERAGE
THIOMENT PRIMER
1-quart can (1 lb. 12 oz. [794 g.])
Coverage: 450 linear feet (137 m.) per can

THIOMENT Joint Sealant
8 lb. 13.4 oz. (4.0 kg.) Unit Consisting of:
Two - 1/2-gal. can of Resin (4 lb. [1.8 kg.]) ea.
Two - 1/4-pt. bottles of Hardener (6.7 oz. [190 g.]) ea.
Coverage: Approx. 180 cu. in. (2,950 cm^3) per unit

THIOMENT Joint Sealant Vertical Grade
8 lb. 13.4 oz. (4.0 kg.) Unit Consisting of:
Two - 1/2-gal. can of Resin (4 lb. [1.8 kg.]) ea.
Two - 1/4-pt. bottles of Hardener (6.7 oz. [190 g.]) ea.
Coverage: Approx. 180 cu. in. (2,950 cm^3) per unit

ESTIMATING OF THE THIOMENT*

Joint Width	Linear Feet per Unit Joint Depth			
	1/4”	3/8”	1/2”	3/4”
1/4”	240 ft.	160 ft.	120 ft.	80 ft.
3/8”	160 ft.	107 ft.	80 ft.	53 ft.
1/2”	120 ft.	80 ft.	60 ft.	40 ft.
3/4”	80 ft.	53 ft.	40 ft.	26 ft.

*A joint width to joint depth ratio of 2 to 1 is recommended.

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ASTM C905	84.5 lb./cu. ft. (1.35 g./cc.)
Tensile Strength, 7 days @ 77°F (25°C)	ASTM D412	160 psi. (1.11 MPa)
Tensile Elongation, 7 days @ 77°F (25°C)	ASTM D412	250%
Hardness, Shore A	ASTM D2240	35-45
Maximum Service Temp.		200°F (93°C)

AVAILABLE COLORS
THIOMENT Joint Sealants are available in black only.

SURFACE PREPARATION
The substrate must be structurally sound, clean, dry and free of all contaminants such as sealers, curing compounds, coatings, oil, dirt, dust and water. Previously applied coatings or paint must be removed.
Metals: Metal surfaces should be grit blasted to a NACE #1 white metal blast cleaned surface finish. When grit blasting is not practical, clean by wire brushing or with abrasive paper and wash with degreasing solvent such as xylene.
For additional information, refer to Surface Preparation, Data Sheet PS-30.

TEMPERATURE DURING APPLICATION
Store THIOMENT and THIOMENT PRIMER at 70°F (21°C) to 80°F (27°C) for 24 hours prior to use. The best working characteristics of the materials will be attained when the temperature of the substrate, air, THIOMENT and THIOMENT PRIMER are between 65°F (18°C) and 85°F (29°C).
Minimum temperature for installation is 35°F (2°C).

TYPICAL DRYING TIMES OF THE THIOMENT PRIMER

Temperature	Drying Time
35°F (2°C)	8 hours
45°F (7°C)	6 hours
55°F (13°C)	4 hours
65°F (18°C)	3 hours
75°F (24°C)	2 hours
85°F (29°C)	1-1/2 hours

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MIXING OF THE THIOMENT PRIMER
THIOMENT PRIMER is a one component product. Stir the THIOMENT PRIMER prior to application and apply to the sides of the joint.

MIXING OF THE THIOMENT
Mixing of the components should be done with a hand drill equipped with a "Jiffy" type mixer at a mixing speed between 300 and 500 RPM.

a. Individually stir the contents of both the Resin can and Hardener bottle for approximately one minute prior to blending the components.
b. Pour the entire contents of the 6.7 oz. (190 g.) bottle of THIOMENT Hardener into the 4 lb. (1.8 kg.) can of THIOMENT Resin.
c. Mix the combined components for approximately two minutes. While mixing, scrape along the sides and bottom of the can to ensure complete mixing of the two components.
d. Transfer the mixture into a clean plastic or metal pail. Scrape the sides and bottom of the Resin can to remove all of the contents.
e. Continue mixing the combined components for approximately two minutes.

APPLICATION OF THE THIOMENT

a. Apply duct tape or masking tape to top surface of the substrate adjacent to both sides of the joint.
b. To the prepared substrate, brush apply a uniform coat of THIOMENT PRIMER. Allow the THIOMENT PRIMER to dry.
c. THIOMENT may be poured into the joint using a convenient size container or injected using a caulking gun and tube.
d. Use a putty knife or mason's trowel to level and remove excess material.
e. Immediately after leveling the joint material, remove the previously placed tape.
f. Protect the THIOMENT from water or other contaminants until it can support foot traffic.

TYPICAL WORKING & SETTING TIMES OF THE THIOMENT

Temperature	Working Time	Support Foot Traffic
35°F (2°C)	2 to 3 hours	3 days
45°F (7°C)	2 to 3 hours	2 to 3 days
55°F (13°C)	2 to 3 hours	2 days
65°F (18°C)	2 to 3 hours	36 hours
75°F (24°C)	2 to 3 hours	24 hours
85°F (29°C)	2 to 3 hours	18 hours

CLEANING OF TOOLS AND EQUIPMENT
Steel wool, soap and warm water will remove the materials referred to in this Data Sheet from mixing tools and equipment if cleaning is done immediately after use. Solvents, such as methyl ethyl ketone, toluene or xylene, will have to be used after the material has begun to harden. Fully hardened material will have to be removed by mechanical means. Dispose of residues and wastes in accordance with the directions in the Material Safety Data Sheets and government regulations.

STORAGE AND SHELF LIFE
Store all materials in a cool, dry environment. Keep all materials out of direct sunlight. Ideal storage temperature is 75°F (24°C). Protect from freezing. In unopened original containers, the materials referred to in this Data Sheet have a shelf life of approximately one year.

PRODUCT SPECIFICATION
The system shall be THIOMENT as manufactured by Atlas Minerals & Chemicals, Inc. The joint sealant shall be resistant to most solvents and alkaline solutions.

PRECAUTIONS
The materials referred to in this Data Sheet are for Industrial Use Only. They contain materials that present handling and potential health hazards. Consult Material Safety Data Sheets and the container labels for complete precautionary information.

TECHNICAL SERVICES
ATLAS maintains a staff of Technical Service Representatives who are available to assist you with the use of ATLAS products. In the event of difficulties with the application of ATLAS materials, the installation should be stopped immediately and ATLAS' Technical Service Department consulted for assistance.

WARRANTY
ATLAS warrants that its products will be free from defects in workmanship and materials under normal use for a period of one (1) year from the date of shipment by ATLAS (provided the products are installed before the expiration of the shelf life). THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR THE PURPOSE FOR THIS PRODUCT WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. ATLAS' LIABILITY FOR ALLEGED BREACH OF THIS WARRANTY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT (BUT NOT INCLUDING REMOVAL OF THE DEFECTIVE PRODUCT OR INSTALLATION OF REPLACEMENT PRODUCTS). ATLAS SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES DURING THE WARRANTY PERIOD OR THEREAFTER. **ATLAS' WARRANTY IS VOIDED IF PAYMENT FOR PRODUCT IS NOT RECEIVED IN FULL.**

Note: Atlas makes it a practice to continuously update and enhance our CCM (Corrosion Resistant Construction Materials) products. This may result in slight discrepancies between our printed Data Sheets and the current version. For the most recent version of any Data Sheet, please visit our Web site at www.atlasmin.com

CHEMICAL RESISTANCE OF THIOMENT JOINT SEALANT (3-61PI)

Acetic Acid, to 5%	E
Acetic Acid, 5% to 10%	G
Acetic Acid, 10% to 50%	F
Acetone	G
Alum or Aluminum Sulfate	E
Ammonium Chloride, Nitrate, Sulfate	E
Ammonium Hydroxide, to 30%	E
Aniline	N
Animal Oils	E
Bakery Products	E
Barium Chloride, Sulfate	E
Beer	E
Benzene	C
Benzene Sulfonic Acid, 10%	F
Benzoic Acid	F
Black Liquor	G
Boric Acid	G
Bromine	C
Butter	E
Butyl Acetate	F
Butyl Alcohol	E
Butyric Acid	F
Calcium Chloride, Nitrate, Sulfate	E
Calcium Hydroxide	E
Calcium Hypochlorite	E
Carbonated Water	E
Casein	E
Cheese, all	E
Chlorine, Dry	F
Chlorine, Wet	F
Chlorine Water	C
Chloroacetic Acid, to 10%	F
Chloroform	C
Chromic Acid, to 5%	N
Cider	E
Citric Acid, to 10%	E
Citrus Fruits	E
Coffee	E
Copper Chloride, Nitrate, Sulfate	E
Corn Oil	E
Corn Syrup	E
Egg Yolk	E
Ethyl Acetate	G
Ethyl Alcohol	E
Ethyl Ether	F
Ethylene Dichloride	N
Ethylene Glycol	E
Fatty Acids	E
Ferric Chloride, Nitrate, Sulfate	G
Fluosilicic Acid	C
Formaldehyde	G
Formic Acid, 10%	C
Fruit Extracts	E
Fruit Juices	E
Gasoline	E
Glucose	E
Glycerine	E
Grape Juice	E
Horse Radish	E
Hydrobromic Acid, to 20%	N
Hydrochloric Acid, to 20%	C
Hydrochloric Acid, 20% to 36%	N
Hydrofluoric Acid, to 20%	C
Hydrofluoric Acid, 20% to 70%	N
Hydrofluosilicic Acid	C
Hydrogen Peroxide	G
Hypochlorous Acid, to 5%	C
Ice Cream	E
Jams & Jellies	E
Jet Fuel	F
Kerosene	E
Ketchup	E
Lactic Acid, to 5%	E
Lactic Acid, 5% to 10%	G
Lactic Acid, above 10%	C
Lard	E
Linseed Oil	E
Lux Liquid	E
Magnesium Chloride, Nitrate, Sulfate	E
Magnesium Hydroxide	E
Maleic Acid, 25%	C
Malt	E
Malt Liquors	E
Margarine	E
Methyl Alcohol	E
Methyl Ethyl Ketone	F
Methylene Chloride	N
Milk	E
Mineral Oil	E
Mineral Spirits	E
Molasses	E
Muriatic Acid	N
Mustard	E
Nickel Chloride, Nitrate, Sulfate	E
Nitric Acid	N
Oleic Acid	F
Olive Oil	E
Oxalic Acid	F
Pectin	E
Perchloroethylene	G
Petroleum	E
Phenol, to 5%	F
Phosphoric Acid, to 25%	C
Phosphoric Acid, above 25%	N
Pickles	E
Picric Acid, to 5%	C
Potassium Bicarbonate, Carbonate	E
Potassium Chloride, Nitrate, Sulfate	E
Potassium Hydroxide	E
Salad Oils	E
Salicylic Acid	F
Shortening	E
Silver Nitrate	F
Skydrol	G
Smokehouse Residues	F
Sodium Bicarbonate, Carbonate	E
Sodium Bisulfate, Sulfate	E
Sodium Chloride, Nitrate, Phosphate	E
Sodium Hydroxide	E
Sodium Hypochlorite	G
Sodium Sulfide, Sulfite	E
Sodium Thiosulfate	G
Soft Drink Concentrates	E
Soft Drinks	E
Soups	E
Soya Oil	E
Stearic Acid	F
Sugar, Saturated Solution	E
Sulfuric Acid, to 20%	C
Sulfuric Acid, above 20%	N
Sulfurous Acid	C
Syrup	E
Tannic Acid	F
Tartaric Acid	F
Tea	E
Toluene	C
Toluene Sulfonic Acid	C
Tomato Juice	E
Trichloroethylene	N
Trisodium Phosphate	E
Tung Oil	E
Turpentine	E
Urea	E
Urine	E
Vegetable Oil	E
Vinegar	E
Water, Distilled	E
Water, Fresh	E
Water and Sewage	G
Wine	E
Xylene	G
Yeast	E
Zinc Chloride, Nitrate, Sulfate	E

(1-98)

KEY

E - Excellent
G - Good
F - Fair
N - Not Recommended
C - Conditional; May be serviceable if the contaminant is immediately removed or washed off the surface.

Note - The information presented in the chemical resistance tables is based on judgments derived from laboratory testing and field service performance. The tables have been prepared as a guide to performance. No guarantee of results is made or implied and no liability in connection with this information is assumed. In actual service, floors and walls protected with THIOMENT are subjected to splash and spillage, as well as dilution effects of wash water, mixing with other solutions, wetting and drying cycles, temperature cycling and cleaning procedures. For immersion service, contact ATLAS for recommendation. The information presented herein should be supplemented by in-service testing. The data furnished in the tables may be revised on the basis of further testing.