



Atlas Minerals & Chemicals, Inc.



DATA SHEET

5-56PI (10-12)
Supersedes 5-56PI (8-10²)

RED FURNANE[®] SETTING BED MT

DESCRIPTION

RED FURNANE SETTING BED MT is a moisture tolerant, corrosion resistant bond coat for floor tile, pavers and brick.

TYPICAL USES

RED FURNANE SETTING BED MT is used by tilesetters and bricklayers to bond masonry tile or brick to a substrate. RED FURNANE SETTING BED MT is used as the bond coat over Portland cement concrete, sand cement and latex or epoxy modified leveling beds with ceramic tile, quarry tile, brick pavers and granite. It is compatible with most resin or cement based grouts or mortars.

PACKAGING

RED FURNANE SETTING BED MT

29 lb. (13.2 kg.) Unit Consisting of:

- One - 1-gal. can of Setting Bed MT Resin (4 lb. 8 oz. [2.0 kg.])
- One - 1-qt. can of Setting Bed MT Hardener (2 lb. [0.9 kg.])
- One - bag of Powder (22 lb. 8 oz. [10.2 kg.])

265 lb. (120.2 kg.) Unit Consisting of:

- One - 5-gal. pail of Resin (40 lb. 11 oz. [18.5 kg.])
- One - pail of Setting Bed MT Hardener (18 lb. 5 oz. [8.3 kg.])
- Four - bags of Powder (51 lb. 8 oz. [22.4 kg.])

SURFACE PREPARATION

Note: When using RED FURNANE SETTING BED MT on porous surfaces such as sand / cement leveling or sloping beds, REZKLAD E-CONCRETE PRIMER MT must be applied and allowed to cure prior to the application of the RED FURNANE SETTING BED MT.

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ASTM C905	110 lb./cu. ft. (1.76 g./cc.)
Bond Strength, 7 days @ 77°F (25°C)		Concrete fails
Tensile Strength, 7 days @ 77°F (25°C)	ASTM C307	1,780 psi. (12.3 MPa)
Compressive Strength, 7 days @ 77°F (25°C)	ASTM C579	10,200 psi. (70.4 MPa)
Flexural Strength, 7 days @ 77°F (25°C)	ASTM C580	4,500 psi (31.1 MPa)
Coefficient of Thermal Exp., in./in./°F (cm./cm./°C)	ASTM C531	3.0 x 10 ⁻⁵ (5.4 x 10 ⁻⁵)
Water Absorption	ASTM C413	0.2%

Existing, New and Damp Concrete: Mechanical grit blasting or acid washing is required for preparing the concrete surface. A finish similar to the profile of 100 to 120 grit sandpaper is suggested.

The prepared substrate must be free of ridges, protrusions, fins and mortar splatter. The substrate must be structurally sound, clean and free of all contaminants, such as sealers, curing compounds, coatings, oil, dirt and dust. Previously applied coatings or paint must be removed.

New Concrete: The concrete substrate must have a minimum of 5 days (120 hours) cure prior to application of the setting bed.

Damp Concrete: The surface may be damp, but must be free of all standing water. Remove puddled or standing water by vacuuming, sweeping, squeegee, sponge or blowing off with compressed air. The concrete substrate must have a minimum of 5 days (120 hours) cure prior to the application of the setting bed.

TEMPERATURE DURING APPLICATION

Store RED FURNANE SETTING BED MT at 70°F (21°C) to 80°F (27°C) for 24 hours prior to use. The

ESTIMATING TABLE – RED FURNANE SETTING BED MT

FLOOR AREA

3/32" Nominal Thickness Square Feet per Unit		1/8" Nominal Thickness Square Feet per Unit	
29 lb. Unit	265 lb. Unit	29 lb. Unit	265 lb. Unit
33 sq. ft.	301 sq. ft.	25 sq. ft.	228 sq. ft.

Material estimating quantities may vary depending upon job conditions and application techniques. Material quantities above are theoretical and do not include a safety factor.

NOTE: ATLAS makes it a practice to continuously update and enhance our CCM (Corrosion Resistant Construction Materials) products. For the most recent version of any Data Sheet, please visit our Web site at www.atlasmin.com.

MIX RATIO CHART – RED FURNANE SETTING BED MT

RED FURNANE SETTING BED MT	Weight	Volume
RED FURNANE SETTING BED MT Resin	4 lb. 8 oz. (2.0 kg.)	62 fl. oz. (2.0 liters)
RED FURNANE SETTING BED MT Hardener	2 lb. (0.9 kg.)	32 fl. oz. (1.0 liters)
RED FURNANE SETTING BED MT Powder	22 lb. 8 oz. (10.2 kg.)	22 lb. 8 oz. (10.2 kg.) bag
Batch Size	29 lb. (13.2 kg.)	0.26 cu. ft. (7.5 liters)

best working characteristics of the materials will be attained when the temperature of the substrate, air, masonry units and RED FURNANE SETTING BED MT are between 60°F (16°C) and 85°F (29°C). Minimum temperature for installation is 40°F (4°C).

MIXING OF THE RED FURNANE SETTING BED MT

Mixing of the components should be with a KOL type mixer with a 5-gallon capacity. The mixing speed should be between 60 and 75 RPM.

29 lb. (13.2 kg.) Unit:

- Combine the contents of the 1-gallon can (4 lb. 8 oz. [2.0 kg.]) of RED FURNANE SETTING BED MT Resin with the 1-quart can (2 lb. [0.9 kg.]) of RED FURNANE SETTING BED MT Hardener in the 5-gallon capacity mechanical mixer. Mix thoroughly for approximately two minutes.
- Slowly add the 22 lb. 8 oz. (10.2 kg.) bag of RED FURNANE SETTING BED MT Powder.
- Mix the combined components for approximately two minutes or until all the powder is thoroughly dispersed.

265 lb. (120.2 kg.) Unit:

- Place 22 lb. 8 oz. (10.2 kg.) of RED FURNANE SETTING BED MT Powder in a clean, dry 5-gallon pail. It is helpful to mark the level for future batches. Set aside.
- Combine 4 lb. 8 oz. (2.0 kg.) of RED FURNANE SETTING BED MT Resin with 2 lb. (0.9 kg.) of RED FURNANE SETTING BED MT Hardener in the 5-gallon capacity mechanical mixer. Mix thoroughly for approximately two minutes.
- Slowly add the 22 lb. 8 oz. (10.2 kg.) of RED FURNANE SETTING BED MT Powder.
- Mix the combined components for approximately two minutes or until all the powder is thoroughly dispersed.

Note: The amount of the powder may be varied slightly to obtain the desired consistency. Decreasing the powder component will decrease the estimated coverage.

APPLICATION OF THE RED FURNANE SETTING BED MT

Apply RED FURNANE SETTING BED MT with a 3/16" V-notched trowel held at a 45 degree angle. Place a sufficient amount of RED FURNANE SETTING BED MT to provide a continuous bond coat to the specified thickness. Do not apply more

TYPICAL WORKING & SETTING TIMES OF THE RED FURNANE SETTING BED MT

Temperature	Working Time	Support Foot Traffic
40°F (4°C)	40 min.	18 hours
60°F (16°C)	35 min.	14 hours
75°F (24°C)	30 min.	12 hours
85°F (29°C)	25 min.	10 hours

material than can be covered in 15 to 20 minutes at 75°F (24°C) or before the mortar begins to set. Refer to the "Typical Working & Setting Times" chart.

When using the Tiler's method of installation, grouting can proceed after the RED FURNANE SETTING BED MT can support foot traffic.

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 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 RED FURNANE SETTING BED MT as manufactured by Atlas Minerals & Chemicals, Inc.

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 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 DEFECTIIVE 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.**