# Fixwool<sup>®</sup> Coatings



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#### DESCRIPTION

Fixwool Coatings are specially developed for use with many Unifrax fibre insulation products. Fixwool Coating M and 145 protect the hot face of fibre linings against gas velocity, flame impingement and shrinkage. Fixwool Coating 130 provides an erosion and abrasion resistant surface for a wide variety of porous and non-porous materials. Fixwool Rigidizers are specially developed hardening solutions that are used to protect exposed fibre surfaces against gas velocity or turbulence and also can be used to provide a higher degree of strength and hardness throughout fibrous products.

#### GENERAL CHARACTERISTICS

Fixwool Coatings have the following outstanding characteristics and advantages:

- High temperature stability
- Very good homogeneity
- Excellent thickness uniformity
- Easy to apply
- Good shelf life

#### TYPICAL APPLICATIONS

- Protect fibre linings against corrosion and abrasion
- Insulation and protection for metallic surfaces
- Hot gas erosion resistant coating in furnaces and ducts
- Structural hardening agent for boards

Any new and/or special use of these products, whether or not in an application listed in our literature, must be submitted to our technical department for their prior written approval.



#### TYPICAL PRODUCT PARAMETERS

Fixwool	Rigidizer D15	Rigidizer D20	Coating 130	Coating 145	Coating M				
Typical Chemical Analysis (dry wt. %)									
SiO <sub>2</sub>	-	-	>16	-	>20				
$Al_2O_3$	-	-	>84	-	>70				
Na <sub>2</sub> O + K <sub>2</sub> O	-	-	<1	-	<1				
$Fe_2O_3 + TiO_2$	-	-	<1	-	<1				
CaO + MgO	-	-	-	-	-				
Physical Properties									
Colour	Blue	Dark Blue	White	Grey	Brown				
Use Limit (°C) *	1100	1100	1300	1450	1500				
Shelf life (months)	12	12	12	12	9				
Application									
Supplied	Ready to use	Ready to use	Ready to use	Ready to use	Powder mix				
Consumption (kg/m²)	-	-	1.5	3	3				
Consumption (litres/m <sup>2</sup> )	0.5 - 1.0	0.5 - 1.0	-		-				

Application method Brush or Brush or Brush or Spray Trowel or Spray Spray spray spray spray

\*The maximum continuous use limit temperature for these products depends upon operating and application conditions. For certain applications operational temperature limits may be significantly reduced. For assistance or clarification please contact your nearest Unifrax Engineering office.

#### PREPARATION AND USE OF COATINGS

Rigidizers are supplied ready to use. They can be sprayed or brushed onto blankets, papers, felts and boards to give an erosion resistant surface. Rigidizers can also be applied using a dipping process, which provides a higher degree of strength and hardness throughout the substrates thickness. Fixwool Rigidizer D20 contains a frost protection component.

Fixwool Coating 130 is an air drying coating formulated to protect vacuum formed shapes, modules (Of density >190 kg/m3) and boards from high gas velocity erosion and chemical attack. This coating may also be applied to other porous refractory surfaces and it is also used as a glue for paper products. Apply only 1mm thickness per coating layer to prevent cracking after drying. Not for use with steel or glass. The coating must be mixed before use and the substrate should be free from dust and oil. Porous surfaces should be wet out with water prior to application of the adhesive. The consistency may be adjusted by adding water up to a maximum of 5% by weight. Product has been used at 1500°C for specific applications.

Fixwool Coating 145 is a mullite based surface coating, ideal for use on fibrous insulation and light-weight refractory materials (either new or fired surfaces). Upon firing the coating (typical thickness 1.5mm) forms a hardened encapsulating shell that resists high gas velocities and flame impingement. Preparation requires the contents to be mixed well with an electric stirrer. The hard, solid contents in the base of the pail may need to be broken up into pieces before the cement can be mixed properly. We suggest the use of a mixing paddle with cutting/mixing blades. Adequate ventilation is required during spray application and precautions should be taken against particle inhalation.

Fixwool M is a high temperature surface coating based on a special mullite fibre composition. It is applied to the hot face of fibre module linings and burner blocks to protect against corrosion, abrasion and shrinkage. It is delivered in the form of a powder that must be mixed with water, the quantity of water depends upon the application. For spray coating 50% by weight of water is required: for trowel application 20% by weight of water is sufficient. Mix well with an electric stirrer. The thickness of the coating should be 3mm to provide protection.

#### **AVAILABILITY**

Packaging	D15	D20	130	145	М
5 litre	$\checkmark$	$\checkmark$			
10 litre			$\checkmark$		
20 kg pail				$\checkmark$	
25 kg drum					$\checkmark$

#### Shelf Life & Storage

Fixwool M can be stored for up to 9 months. Rigidizer, Fixwool 130 & 145 up to 12 months. All based on unopened containers kept in cool dry storage conditions. Storage of all items except Fixwool 130 between 5 and 20°C is recommended. Storage of Fixwool 130 between 10°C and 25°C. Excessive heat or cold will adversely affect shelf life.

#### HANDLING INFORMATION

A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on handling precautions and emergency procedures. This must be consulted and fully understood before handling, storage or use.

Supplied by:

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