

# Promat

## ACCESSORIES

Promat® bonding agents, coating systems and accessories have been developed for economical processing of various types of insulating materials and lightweight construction systems. They are inorganic, asbestos-free and can be used for high temperatures. Structure, consistency and processing methods have been developed to suit special insulating material groups.

### BONDING AGENT ALSIFLEX® 1000°C - 1450°C

Pasty high temperature bonding agent, ready to use for up to 1450° C. Especially suitable for insulating materials with absorbent structure and for bonding lightweight construction systems.

#### ADVANTAGES AND PROPERTIES

- Ready-to-use
- High adhesion strength
- Fine, pasty consistency
- High permanent temperature resistance up to 1000° C - 1450° C
- Quick bonding

### ALSIFLEX® RIGIDIZER

ALSIFLEX® RIGIDIZER is an inorganic liquid special solution for fixing or hardening ALSIFLEX® ceramic fibre products and PROMAGLAF® fibre products.

It is ready-to-use and can be applied by painting, spraying or immersing. The quantity required depends on the degree of penetration of moisture, approx. 200-1000 g/m<sup>2</sup>.

#### APPLICATIONS

The surface to be treated should be clean and free of oil and grease. ALSIFLEX® RIGIDIZER can be applied by brushing, rolling, dipping or spraying. If applied by spraying, good ventilation or the use of an extraction system is recommended.

Hardening begins at the drying stage and can be accelerated by temperature influence. The hardening agent can be used for all types of ceramic fibre, however it reduces the classification temperature by approx. 50-100°C, depending on the quantity applied.





## TECHNICAL DATA

Product name	ALSIFLEX® glue 1000	ALSIFLEX® glue 1450	ALSIFLEX® RIGIDIZER	ALSIFLEX® Coatings			ALSIMASTIC 1200	ALSIMASTIC 1600	ALSIFILL		ECOFILL
				150	180W	180B			1200	1400	
Colour	grey/black	grey	blue	white	white	blue	white	white	white	white	greenish
Classification temperature	1000	1450	1250	1250	1250	1250	1250	1600	1250	1400	1150 °C
Density			1200	1790	1750	1550	1250 (wet) 670 (dry)	1600 (wet) 1100 (dry)	320	320	320 kg/m³ kg/m³
Consistency	pasty	pasty	liquid	pasty	paint	paint	pasty	pasty	pasty	pasty	pasty
Processing temperature	5 - 40	5 - 40	5 - 40	5 - 40	5 - 40	5 - 40	5 - 40	5 - 40	5 - 40	5 - 40	5 - 40 °C
Hardening	24	24	24	24	24	24	24	24	24	24	24 hour
Substrate	dry, dust-free, grease-free	dry, dust-free, grease-free	dry, dust-free, grease-free	dry, dust-free, grease-free	dry, dust-free, grease-free	dry, dust-free, grease-free	dry, dust-free, grease-free	dry, dust-free, grease-free	dry, dust-free, grease-free	dry, dust-free, grease-free	dry, dust-free, grease-free
Storage	frost-free, 6 months	frost-free, 6 months	frost-free, 6 months	frost-free, 6 months	frost-free, 6 months	frost-free, 6 months	frost-free, 6 months	frost-free, 6 months	frost-free, 6 months	frost-free, 6 months	frost-free, 6 months
Chemical composition											
Al <sub>2</sub> O <sub>3</sub>				41	38	36		66			%
SiO <sub>2</sub>				58	61	63		33			%
MgO				0,32	0,32	0,32		0,03			%
CaO				0,14	0,14	0,14					%
Na <sub>2</sub> O				0,14	0,14	0,14					%
Fe <sub>2</sub> O <sub>3</sub>				0,01	0,01	0,01		0,01			%
MgO								0,03			%
K <sub>2</sub> O								0,01			%

RCF have been classified as a category 2 carcinogen under EU directive 67/548/EC. Therefore avoid exposure and obtain special instructions before use. MSDS-sheets are available on request.

Promat contains the right to change without notice the properties and values of all products. The given technical values are obtained in specific conditions and are average and indicative. In case of any doubt if these properties and/or values are matching the application requirements, please contact Promat for advise.



## STANDARD SIZES

Product name	ALSIFLEX® glue 1000	ALSIFLEX® glue 1450	ALSIFLEX® RIGIDIZER	ALSIFLEX® Coatings			ALSIMASTIC 1200	ALSIMASTIC 1600	ALSIFILL		ECOFILL
				150	180W	180B			1200	1400	
	30 kg	20 kg	20 l	20 l	20 l	20 l	20 kg	20 kg	20 kg	20 kg	20 kg
	310 ml		5 l	5 l	5 l	5 l	5 kg	5 kg	5 kg	5 kg	5 kg
	15 ml						500 gr	500 gr	300 gr	300 gr	300 gr

## ACCESSORIES

### ALSIFLEX® COATINGS

ALSIFLEX® COATINGS is a ceramic cement based on milled ceramic fibres and an inorganic binder. When dried, it presents a hard, erosion resistant surface, which is also extremely temperature resistant. Its insulation properties are good and it has excellent resistance to thermal shock.

Its resistance to sticking by many non-ferrous molten metals enables the cement to be used as a protective coating for a wide range of porous and non-porous materials. ALSIFLEX® COATINGS has excellent thermal reflectance and dielectric strength properties and exhibits excellent resistance against most chemicals except for hydrofluoric and phosphoric acid as well as concentrated alkalis.

ALSIFLEX® COATINGS is available in three different types with different viscosities.

### Typical applications

- Coating for moulds for high purity liquid metal and molten glass.
- Oxidation resistant coating for chlorine injection tubes and graphite crucibles.
- Corrosion barrier for aluminium dip tubes, galvanising tanks, etc.
- Electrical insulation coating.
- Insulation coating for protection from
  - flame impact
  - impact of high gas velocities
  - impact of liquids
- Adhesive for ceramic parts
- Heat shields

### Application information

The surface to be coated should be cleaned and free of oil and grease. ALSIFLEX® COATING 150 can be applied by brushing or trowelling. ALSIFLEX® COATING 180 can be applied by brushing,

rolling or spraying. If applied by spraying, good ventilation or the use of an extraction system is recommended. All three coatings can be dried and cured in air or in an oven, which accelerates the process.

### ALSIMASTIC 1200

ALSIMASTIC 1200 is a form and modelling mass based on ceramic fibres and an inorganic binder. Drying shrinkage is minimal with hardly any cracks being noticeable when thoroughly dried. ALSIMASTIC 1200 adheres to almost all surfaces, including complex geometric shapes. Due to its putty-like consistency it can be easily pumped for example to insulate "Hot Spots".



### Typical applications

- Coatings of moulds for high purity liquid metal and glass melts.
- Sealing component for various applications (i.e. coating for caps, pipe connections, etc.)
- Forming mous for a pouting spout on a melting pot.
- Insulation mous with a high adherence to complex geometric shapes.
- Coating for metal parts (heat protection).

### ALSIMASTIC 1600

ALSIMASTIC 1600 is a moulding mastic for high temperature applications up to 1600°C. It is based on ceramic fibres and a blend of organic and inorganic binders. Being dried the mastic shows a hard surface and very little shrinkage with hardly any cracks being noticeable. ALSIMASTIC 1600 adheres to almost all surfaces, has good insulation properties, excellent resistance to thermal shock and good non-wetting properties towards molten non-ferrous metals and glass. These properties can even be improved in combination with our product ALSIFLEX® COATING 180W as a finishing coating, which provides an even smoother surface and additional heat reflection.

### Typical applications

- Coatings of moulds for high purity liquid metal and glass melts.
- Sealing component for various applications (i.e. coating for caps, pipe connections, etc.)

- Forming mous for a pouting spout on a melting pot.
- Insulation mous with a high adherence to complex geometric shapes.
- Coating for metal parts (heat protection).

Due to its putty-like consistency ALSIMASTIC 1600 can be easily pumped, caulked or trowelled, depending on the application. It can be air dried, or if dried at a temperature of approx. 90-110°C, it is recommended that the treated surface is left uncovered and enough ventilation is provided to allow any steam produced to escape safely.

### ALSIFILL 1200/1400

ALSIFILL is a versatile sealing material composed of ceramic fibre and an inorganic binder. Due to its putty-like, consistency it can be easily pumped, caulked or trowelled, depending on the application. When used for filling gaps, deep cracks and joints, we recommend dispending ALSIFILL by caulking, as this guarantees optimal distribution and penetration.

### Application and drying procedures

ALSIFILL can be installed by pumping, caulking or trowelling. The installed material can be air dried but higher temperatures up to operation temperature are recommended. However it is necessary to ensure enough ventilation is available, to allow any steam produced to escape safely. Air drying is a slow process.

### ECOFILL

ECOFILL is a sealing product based on PROMAGLAF® HTK fibres.

It can be used as an alternative to ALSIFILL if a product free from ceramic fibres is required.

Like ALSIFILL, it can easily be pumped and then worked with a trowel or filling knife.

For filling holes, deep cracks and for joints we recommend applying ECOFILL with a trowel or filling knife, as this guarantees optimum distribution and penetration

### Application and drying procedures

ECOFILL can be applied by means of a pump system and/or with a filling knife or trowel. The applied product can dry in the open air, but we recommend that it is dried at higher temperatures, up to the maximum operating temperature, since drying in the open air takes time. During drying we recommend providing adequate ventilation because of the vapours given off during the drying process.