

MINOVA

GEOFLEX

DUAL COMPONENT ELASTICIZED
NON-EXPANDING SILICATE RESIN

DESCRIPTION

GeoFlex is a non-expanding, elasticized dual-component resin having good adhesion even on moist surfaces. GeoFlex is flexible and under the stress of strata movement is capable of dissipating deformation energy. This product achieves its ultimate strength much faster than other resins, even when applied in thin layers.

GeoFlex exceeds a bond strength of 145 psi, and is classified as "immediate load bearing".

The component mixture creates a tough, elastic, solid silicate resin (organic-mineral resin). Once the components have been thoroughly mixed, the viscous emulsion that results is immiscible with water and does not absorb any water (e.g from the surrounding soil or rock strata). Cured GeoFlex is resistant against acids, alkali, brines and many solvents.

APPLICATIONS AND USES

GeoFlex is used for grouting coal and adjacent strata, stabilizing coal faces, sealing of injection anchors, tunnel construction, maintenance of mine roads, consolidating railroad ballast, and other applications. GeoFlex is excellent for void filling in cracks of more than 0.25 mm in width.

ADVANTAGES

- > Rapid reaction and strength development
- > Flexible for greater toughness
- > Final strength after 15 minutes

APPLICATION METHOD

We recommend storing the products prior to processing for at least 12 hours at temperatures of 60 °F (15°C), to 86°F (30°C) to achieve a recommended processing temperature of a minimum 60°F (15°C). When the material is warmed up, local overheating, e.g. at the container wall must be avoided by any means.

The two components are pumped by a dual component pump at the volumetric ratio of 1:1 and injected into a previously created hole with an integrated static mixer. The viscosity of the liquid mixture increases continuously until it will no longer flow (solidification point). At this point the resin sets, without any foam expansion.

TECHNICAL DATA

The data below is laboratory data. It may vary in practice due to thermal exchange between resin and strata, surface properties of the rock, humidity, pressure, and other factors.

TECHNICAL PROPERTIES

PARAMETER	UNIT	COMP A	COMP B	STANDARD
Density at 25°C	Kg/m ³	1480 ± 30	1140 ± 30	DIN 12791-1
Color		brownis-turbid	brown	
Flash Point	°F	>212	>338	DIN 53213
Viscosity at 25°C	cps	260 ± 40	150 ± 30	ISO 3219

MECHANICAL DATA

PARAMETER	AFTER 15 MINS	AFTER 1 DAY	AFTER 7 DAYS	AFTER 28 DAYS
Bond Strength (3 Mm Crack)	624 psi (4.3 N/mm ²)	537 psi (3.7 N/mm ²)	653 psi (4.5 N/mm ²)	682 psi (4.7 N/mm ²)
Deformation Work (3 Mm Crack)	0.413 lb ft (560 Nmm)	0.200 lb ft (270 Nmm)	0.221 lb ft (300 Nmm)	0.258 lb ft (350 Nmm)
Modulus Of Elasticity	-	-	36250 psi (250 N/mm ²)	-

REACTION DATA

INITIAL TEMPERATURE	77°F (25°C)	104°F (40°C)	STANDARD
Flow Time	2 min 00 s ± 30 s	1 min 03 s ± 20 s	MCT PV 10-304
Setting Time	3 min 45 s ± 35 s	2 min 35 s ± 30 s	MCT PV 10-304
Foam Expansion Factor	1	1	MCT PV 10-304
Maximum Reaction Temperature	208°F (98°C)	540	145
Shore Hardness	D60	47	ISO 7619-1

SAFETY INSTRUCTIONS AND LIMITATIONS

Due to the density of GeoFlex, the product tends to sink in water.

When the material is warmed up, local overheating at the container wall must be avoided by all means.

PACKAGING AND TRANSPORTATION

CONTAINER TYPE	GEOFLEX COMPONENT A	GEOFLEX COMPONENT B
PC (Jug)	50 lbs (23 kg)	38.25 lbs (17 kg)
Steel Drum	620 lbs (281 kg)	477 lbs (216 kg)
IBC (Tote)	3100 lbs (1406 kg)	2387 lbs (1083 kg)

Other packing units available on request.

STORAGE AND SHELF LIFE

At least six months from date of delivery or twelve months from date of production when stored in a dry place between 23 °F (-5° C) and 86 °F (30° C). If this time is exceeded, we recommend having the material checked by Minova USA, Inc. for compliance with specification.

DISPOSAL

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of material in accordance with all applicable federal, state/provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

MANUFACTURER

Minova USA Inc

An ISO 9001:2015

Quality Management Certified Company
Certificate No. FM 686583

Original Registration Date: 1995-02-15
Expiry Date: 2028-02-14



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