PRODUCT DATA SHEET

Date: 28.01.2015
Revied date: 11.05.2017
Prepared by: PP
Approved by: AK
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Product dokumentation:
Norway: RISEFR AA-050
ETA-number: 15/0026
DoP No. FIR/PP/GPG-25-05-2015

CE 1071

FIRESAFE GPG MORTAR

GENERAL

GPG is a powder consisting of plaster, perlite and glass fibre that when mixed with water forms a mortar. The product is intended for use in internal conditions with humidity lower than 85 % RH excluding temperatures below 0 °C and without exposure to rain or UV (category Z_2). The mortar hardens into a strong and fireproof material. GPG is used for fire proofing penetrations of cables, pipes and small holes in walls and floors. The mortar effectively prevents fire, smoke, and poisonous gases from spreading between fire cells. GPG is also used for insulation against noise, drafts, air pollution as well as for finishing work such as repair of scars in concrete, cotter slots, etc. The mortar has excellent finishing properties and adheres to concrete, plaster and steel.

APPLICATION

- Fireproofing of cable penetrations. • Fireproofing of pipe penetrations
- Fireproofing around ventilation ducts. • Fireproofing around girders, beams and columns
- Fireproofing between fire cells. • Construction finishing of scars in concrete, cotter slots, etc.
- Tested in brick, concrete, plaster structures and shown to have fire resistance up to EI 240, dependent on the installation

INSTALLATION

Add GPG into a bucket with water, and mix by hand or with a power mixer for about ½ minute to a smooth mixture to the desired consistency (see mixing ratio below). Initial setting time is 75 minutes but may vary depending on the water-GPG powder ratio. FS retarder may be added to delay the curing time. Check that the hole is free from combustible materials, dirt, dust or other contaminants and that it provides a suitable keying surface on all sides. Due to the high moisture and condensation, metal pipes must always be rust proofed prior to sealing. This is best achieved through casing with tape or with fire rated cell rubber. Installation instructions from pipe supplier must be followed. Use masking tape around cutouts for a neat end result.

Mixing rations	GPG to water
Accessible vertical areas	4:1
General working/gunning	3:1
Holes in floor slabs	2:1

PACKING

GPG bucket 10 ltr and GPG 5 ltr bucket containing sealed plastic bags with GPG for easy removal. This contributes to easy handling for users of GPG, since one can use the bucket for mixing the desired amount.

STORAGE

Store dry, flat and frost free. Storage life almost unlimited

SAFETY ISSUES

Firesafe GPG complies with the requirements of GEV and the results correspond to the EMICODE emission class EC 1PLUS. It also complies with the requirements of the ISO 16000 based M1 classification. There are no health or safety issues.

25 liter bag
FS-article nr.: 100 050
El-number: 12 178 00

15 liter bag
FS-article nr.: 100 100
El-number: 12 178 60

10 liter bucket
FS-article nr.: 100 017
El-number: 12 178 48

5 liter bucket
FS-article nr.: 100 101
El-number: 12 178 59

FIRESAFE

Firesafe AS, Robsrudskogen 15, Pb 64 11 Etterstad, N-0605 Oslo Tlf +47 09110, firmapost@firesafe.no

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MATERIAL DATA

Mechanical

Compressive Strength		(MPa)	: 12	(120kg/cm²)
Impression Strength:				
- cylinder/diameter	Ø20 mm	(MPa)	: 13	(Load:4kN)
- cylinder/diameter	Ø40 mm	(MPa)	: 11	(Load:15kN)

Thermal

Spesific heat	v/20°C	(J/kg°C)	: 575	(0.14 kcal/kg°C)
	v/1000°C	(J/kg°C)	: 986	(0.25 kcal/kg°C)
Thermal conductivity EN 12664/EN12667	v/10°C	(W/mK)	: 0.14	(0.25 kcal/kg°Ch)
	v/100°C	(W/m°C)	: 0.15	(0.13 kcal/m°Ch)
	v/500°C	(W/m°C)	: 0.17	(0.15 kcal/m°Ch)
Loss of mass on heating EN ISO 3451-1	v/950°C	(weight-%)	: 7.7	
Max application use		(°C)	: 700	

Fire

Combustion ISO 1182 og NT Fire 001	: Non-combustible material
Smoke	: None
Corrosivity of fire gases	: None
Toxic decomposition products	: None

PHYSICAL

Density(weight)	(g/cm³)	: 0.7
Volume Increase by curing	(vol-%)	: 1.1
Initial setting time EN 480-2	(minutes)	: 75
Curing time	(days)	: 1-3 paintable earliest after 21 days

CHEMICAL

resistant to:

Water	: Good
Mineral oil / petrol / organic solvents	: Good
Acid	: Good
Base	: Good

Content of chlorine, fluorine or bromine (veight-%) : 0

Age resistanc: No known aging degradation. No reduction of properties over time.

Miscellaneous

Colour		: Beige	
Adhesiveness to concrete	(M Pa)	: 1.0	(10 kg/cm²)
Adhesiveness to steel	(M Pa)	: 0.35	(3.5 kg/cm²)
Blast resistance (10 cm thick concrete wall)	(Bar)	: >7	
Air permeability cured product EN 1026.		: Air thight	
Sound insulation EN ISO 10140		: 30 mm thickness; 33dB, 100 mm thickness 41dB	
Water vapor resistance sd-value EN ISO 12572	(m):	0.068	

The penetration seal fulfils the requirements in EOTA TR 001 clause A.1, for a maximum wall opening of 1000 x 1000 mm.

Zones: Type I, II, III and IV

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