FIRESAFE GPG MORTAR

Date: 28.01.2015
Revied date: 11.05.2017
Prepared by: PP
Approved by: AK
Page: 1 av 2
Product dokumentation:
Norway: RISEFR AA-050
ETA-number: 15/0026
DoP No. FIR/PP/GPG-25-05-2015

1071

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 El 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 rationsGPG to waterAccessible vertical areas4:1General working/gunning3:1Holes in floor slabs2:1

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



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MATERIAL DATA Mechanical Compressive Strength.....(MPa) (120kg/cm²) : 12 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) (W/m°C) : 0.17 (0.15 kcal/m°Ch)v/500°C Loss of mass on heating EN ISO 3451-1..... v/950°C (weight-%) : 7.7 Max application use(°C) : 700 Fire 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-%) Age resistanc: No known aging degradation. No reduction of properties over time. Miscellaneous Colour: Beige Adhesiveness to concrete (M Pa) (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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