



PACTOGrout ExpanPA

Expanding Plasticising Admixture For Cement, Grout And Concrete

PRECISION GROUTS

DESCRIPTION

PACTOGrout ExpanPA is a non-gaseous, non-shrink additive in powder form. It contains a water-reducing agent which increases the workability of the mix with reduced water content, making a stronger grout. It makes the grout mix cohesive and free from segregation and bleeding. It is designed to allow uniform expansion, while maintaining high fluidity

TYPICAL USES

Used as an additive in cement, concrete to provide non-shrink properties. Applications include grouting of pre-stressed cable ducts, bearing plates, tunnel linings, sheet pile anchors, rock & soil anchoring, concrete crack injection, non-shrink concrete, etc.

ADVANTAGES

- Hydrogen gas free
- Improved fluidity at reduced mix water content
- Prolongs workability
- Reduces bleeding and segregation
- Good strength and adhesion
- Improved cohesion
- Protects against corrosion of pre-stressing wires

TECHNICAL DATA (TYPICAL PROPERTIES at 25°C with dosage of **PactoGrout ExpanPA** at 6%)

PROPERTY	TEST METHOD	VALUE
Component		Single
Form		Powder
Colour		Beige to light brown
Bulk Density		0.75 gm/cc +/-0.05
Flow (Marsh Cone)	BS EN 445	0.36 W/P ratio (Initial: 12-14 secs) (after 60 mins 15-18 secs)
		0.33 W/P ratio (Initial: 14-18 secs) (after 60 mins: 17-20 secs)

Compressive Strength	BSEN196-1	0.36 W/P ratio 7days: 40 N/mm ₂ 28 days: 50 N/mm ₂
		0.33 W/P ratio 7days: 50 N/mm ₂ 28 days: 65 N/mm ₂
Flexural Strength	BS 6319 -3	4 N/mm ₂ at 28 days at w/p 0.33
Expansion	BSEN 445	up to 4% Positive expansion
Bleeding	BSEN 445	Nil
Chloride Content	BS EN 480-10	Nil to BS EN 934-4
Setting Time	ASTM	C191-01a -
Sedimentation	BSEN 445	<2%

STANDARDS

BS EN 934-4

PACKAGING

1kg, 5kg and 20 kg

APPLICATION INSTRUCTION

SURFACE PREPARATION

Post Tension Cable Duct Grouting:

Ensure the metal casing duct is leak-proof. Remove entire quantity of water filled in the duct during "pre grouting check" by air pressure. Check that air vents and valves are in good working condition.

Cavity / Base plate Grouting:

Roughen all concrete surfaces by wire brushing, grinding or other mechanical means to ensure a good bond. Loose or broken concrete shall be removed. The concrete surfaces shall be saturated with water at least 3-4 hrs prior to the application of grout. Any standing water shall be removed prior to the placement of the grout. Leak proof and strong form work should be in place prior to placement of grout.

MIXING

For best results a mechanically powered grout mixer should be used. For quantities up to 50-60 kg slow speed drill fitted with a paddle can be used. Water should be measured accurately into the mixer. Slowly add cement and start mixing. **PACTOGrout ExpanPA** should be slowly added and continue mixing for 5



minutes. Ensure that the grout has a smooth and even consistency after mixing.

APPLICATION

Mixed grout should be placed by continuously pouring the grout from only one side of the form work. Place the grout within 20 minutes of mixing to gain the full benefit of expansion process. Adopt usual placing or pumping procedure ensuring a continuous operation. Re-tempering of grout by adding extra water after stiffening is not recommended.

FOR CABLE DUCTS:

Grouting process shall be started from one side of the cable duct till homogenous consistency of the final mix starts flowing from consecutive air vent valves and outlet valves.

CURING

All exposed grout surfaces should be cured by ponding of water or by using wet hessian. Alternatively, curing compound from PACTOCure range can be used.

NOTE In case of grouts for post-tension cable ducts, maintain grout temperature at 20 +/-2°C (As per BSEN 445) to ensure better flow and retention properties.

LIMITATIONS

PACTOGrout ExpanPA shall not be used with High Alumina Cement or Cement containing Fly Ash. Grout containing **PACTOGrout ExpanPA** shall not be used in unrestrained areas as it may lead to the cracking of grout. Gap surrounding the base plate & formwork shall be as minimum as possible.

DOSAGES

Normal dosage at 4-8% by weight of cementitious material. Actual dosage to be confirmed after site trials.

YIELD

OPC	0-5 MM SAND	WATER	EXPAN PA	APPROX. YIELD
50 KG	Nil	17 litre	3.00 kg	34 litre
50 KG	50 kg.	20 litre	3.75 kg	56 litre
50 KG	100 kg.	22 litre	5.00 kg	79 litre

STORAGE AND SHELF LIFE

Shelf Life 12 months from date of manufacture when stored under warehouse conditions in original unopened packing. Extreme temperature/humidity may reduce shelf life.

EQUIPMENT CLEANING

Clean all equipments and tools with water immediately after use.

HEALTH AND SAFETY

PPE's Gloves, goggles & suitable mask must be worn.

Precautions: Contact with skin, eyes, etc. must be avoided.

If swallowed seek medical attention immediately.

Hazard Regarded as non-hazardous for transportation.

Disposal: Do not reuse containers. To be disposed off as per local rules and regulations.

For additional information pls refer to MSDS, available on request.



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