

Description:

FlowMax® NSGPC Ultra is specially formulated non-shrink polymeric compound for injection cement grouting. By introducing into the concrete mix, wet volume expansion and increased fluidity without segregation are produced. Its strong plasticizing properties allow the mix for substantial reduction in water content without affecting the fluidity, thus improving the strength and impermeability of the grout.

During the setting period of the grout, it produces controlled expansion to compensate the normal plastic shrinkage of cement. This ensures complete filling of voids and prevent formation of porous sections. Due to its surface-active property and volume increase during reaction, even the smallest cracks and pores can be impregnated.

Application:

FlowMax® NSGPC Ultra is used to increase flow and cohesion in cement grouts and to develop nonshrink property. This product is recommended for use in grouting of:

- Pre-stressed cable ducts
- Rock and soil anchoring
- For injection grouting to effectively waterproof and stop leaks in underground structures, basements, tunnels, lift-wells, retaining walls, dams, water reservoirs, pressure ducts and other water retaining structures.

Features & Benefits:

- FlowMax® NSGPC Ultra compensates for plastic shrinkage and settlement in properly designed cementitious grout.
- Reduced water: cement ratio in the grout mix, ensures low permeability and long term durability in service.
- Gives high grout fluidity with low water: cement ratio, thus making placement or injection of the grout easy.
- No metallic iron content to corrode and cause staining or deterioration due to rust expansion in the grout.
- Composition allows high early strength development in grout, without the use of chlorides.

Typical Properties:

Chloride content:	Nil to BS 5075 : 1982
Bulk Density, kg/m³	900 ±150
Expansion characteristics	The expansion obtained by the use of Sterling® FlowMax® NSGPC Ultra reaches a maximum within 1-2½ hours of mixing under average temperature conditions. After this period no settlement occurs, and the grout retains its maximum expansion. FlowMax®NSGPC Ultra produces a maximum expansion of 2.5% in a neat cement grout, and 2% expansion in a 1:1 sand/cement grout.
Setting time	FlowMax®NSGPC Ultra does not significantly affect the setting times of cement based grout.
Compressive strength	The plasticizing action of FlowMax®NSGPC Ultra allows reduction of water: cement ratio of cementitious grout whilst maintaining flow properties. This gives improvement in strength and long term durability when cured under restraint.
Compatibility	FlowMax®NSGPC Ultra is compatible with all types of Portland cement. It may be used in mixes containing certain other admixtures, consult Sterling Technotrade Technical representative for further information.

Instructions & Usage:

Mixing:

For quantity up-to 50 Kg. a slow speed drill fitted with a high shear paddle is suitable. Large quantities will require a high shear vane mixer. It is essential that machine mixing capacity and labour availability is adequate to enable the grouting operation to be carried out continuously. This may require the use of a holding tank with provision for gentle agitation to maintain fluidity. The selected water contents should be accurately measured and added into the mixes. Slowly add the cement and sand if required and FlowMax® NSGPC Ultra. Mix continuously for 5 minutes, making sure that a smooth even consistency is obtained.

Application Procedure:

FlowMax® NSGPC Ultra is admixed with neat cement slurry of suitable consistency and injected under pressure preferably by a positive displacement pump through nozzles. The surface of the concrete/rock should be properly sealed/patched to prevent the grout from coming out. FlowMax® NSGPC Ultra should be mixed uniformly with dry cement.

Curing:

On completion of the grouting operation, any exposed area which are not to be back should be thoroughly cured by means of water application, **TechnoFinish@Conkure 101/102** series curing compound or wet hessian.

Dosage:

The rate of addition varies from 0.5% - 2% by weight of dry cement. The optimum dosage depends on the nature of the work.

Effects of overdosing:

Drastic over-dosing of Sterling® FlowMax® NSGPC Ultra increases expansion and may cause frothing.

Packaging:

FlowMax® NSGPC Ultra is supplied in 30 Kg HDPE bag.

Storage & Shelf Life:

FlowMax® NSGPC Ultra has a shelf life of 12 months if kept in dry store in its original packaging. High temperature and humidity storage may reduce this period.

Limitation:

FlowMax® NSGPC Ultra is not compatible with high alumina cement.

Cleaning:

Grout mixed with FlowMax® NSGPC Ultra should be removed from tools and equipment with clean water immediately after use.

Health & Safety Instructions:

FlowMax® NSGPC Ultra is formulated from chemicals which present no fire or health hazards. Does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Store all materials and equipment safely and out of reach of children and animals. Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment. In case one of the components comes in contact with the skin, wash thoroughly with soap and water. Provide adequate ventilation in volume and pattern in working area.

***Further protection:** emergency showers and eyewash stations. Get immediate medical attention as needed.

Additional Information: Techno Builders Solutions® By Sterling Technotrade India Pvt. Ltd offers high performance concrete admixtures, adhesives, protective coatings, concrete repairs, industrial flooring, grouts, anchors, joint sealants, surface treatments, curing compounds, repair mortars

***Separate datasheet are available on these products.**

Disclaimer: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

Edition: 10/2017/001 Identification No: PD-374
This datasheet supersedes all previous versions.

STERLING TECHNOTRADE INDIA PRIVATE LIMITED

The Specialist Construction Chemical Company®

Head Office: 109-111-112, 1st Floor, Vijaya Building, No. 17, Barakhamba Road, Connaught Place, New Delhi- 110001

Manufacturing Unit: Plot No-J-3, UPSIDC Site C, Surajpur Industrial Area, Greater Noida, Uttar Pradesh 201306

WEB: sterlingtechnotrade.com | **EMAIL:** support@sterlingtechnotrade.com | **TEL:** 01145084212