

CAT. No. GRT-02-2010

ISOLA N-S GROUT

Non – Shrink, Non – Metallic Grout

ISOLA N-S GROUT is a ready-to –use, pre-packaged blend of cement, graded quartz aggregates and additives which only requires the addition of water at the site to produce a grout of fluid consistency. The unique shrinkage compensating system of N-S grout incorporates the latest technological advance in shrinkage prevention. The controlled expansion of N-S Grout both in the plastic and hardened state ensures intimate contact with the surrounding substrates.

USES

ISOLA N-S GROUT is used for grouting heavy support beneath bed plates, rails anchor bolts, stanchion bases, structural building members such as columns, post tensioned girders, panels, beam, precast wall panels and other applications other than those subject to high impact and intense dynamic loading. For applications requiring exceptional stability under dynamic loading, use either ISOPOX GROUT (STD, or LE) or ISOPOX GROUT LEM.

SPECIFICATIONS

ISOLA N-S GROUT conforms with the requirements of U.S. Army Corps of Engineers CRD C 621 and ASTM C 1107-89.

ADVANTAGES

- Does not contain metallic iron.
- Controlled expansion both in the plastic and hardened state.
- High early and ultimate strength
- Pre-packaged, ready to use at site
- Flowable, fluid consistency

TYPICAL PROPERTIES

1. Compressive Strength (50 x 50mm cube) CRD C 621, N/ Sq.mm;
 - 3 Days 40.0
 - 7 Days 55.0
 - 28 Days 70.0
2. Restrained Expansion (CRD C 621)%
 - 3 Days 0.01
 - 7 Days 0.05
 - 28 Days 0.05

SETTING TIME

- Initial set 2 – 3 hours
- Final set 6 – 7 hours

(Note: GROUT was tested using a water – grout ratio of 0.18 at 25⁰ C Celsius ambient; fluid consistency).

DIRECTIONS FOR USE

SURFACE PREPARATION

Concrete should be sound and all surfaces to be in contact with the grout shall be entirely free of oil, grease, laitance, curing compounds, dirt, and other contaminants. Roughen the surfaces by chipping or other mechanical means to assure bond of the grout to existing concrete. Foundation plates and all metal surfaces of equipment bases to be in contact with the grout should be thoroughly cleaned and should be free from oil, greases, dirt and contaminants. Forms should be strong, braced, sealed at the edges, and properly secured. Forms should be treated with ISOREX form release agent.

Saturate the concrete with water for at least one (1) hour before placing grout. After saturation, remove any excess water using oil-free compressed air.

BASE PLATES

Base plates with skirt around the perimeter should have air relief holes (3mm Ø). If plate is bisected with stiffening members, relief holes should be provided at the intersections with the skirt.

MIXER

For best results, mechanical mixing of grout is highly recommended. If mechanical mixer is used, it should be a mortar mixer with moving blades inside the drum as opposed to a concrete mixer with fins on a rotating drum. Mechanical mixing should be employed when mixing grout of fluid consistency.

SHOULDERS

Grout should always be cut-back to the bottom outer edge of the baseplate and tapered to the existing concrete.

MIXING WATER

Although designed for fluid, pumpable application, the consistency can be adjusted to produce plastic and pourable consistencies. The range of mixing water can be varied between 3.4 to 4.5 liters per 25 k bag of grout. As a general rule, always start with the minimum water and add water to obtain the desired consistency. The mixing water should be accurately gauged.

MIXING

Put the required amount of water into the mixer, then slowly add grout while mixing. Mix for 3 to 5 minutes until mixture is smooth and homogeneous. Place immediately.

PLACING (BASE PLATE)

Allow clearance of 75-100mm width on the placing side and 50mm on the opposite side. Slope the form on the placing side to assist in grout movement. Use a hopper or a head board to provide a constant head of grout and to assure a continuous uninterrupted flow. Place grout from one side only and maintain a minimum grout head of 150mm. The level of grout in the hopper must never fall below the top of the baseplate, otherwise air will be trapped. Grout placement should be rapid and continuous so as to avoid cold joints under the base plate. Cement based grout should not be placed in layers. Final level of the grout should be slightly above the underside of the baseplate. Cover the grout with burlap especially when working outdoors and during hot weather (A supplemental guide to HOT weather Grouting is available upon request).

FINISHING

Just before the grout has reached its final set (or when the grout can be cut with the steel trowel and will stand up without support) the form must be removed and all the grout that is above the underside of the baseplate must be cut back to the lower edge. A 45 degree angle cutback is recommended. After finishing, cure immediately.

CURING

Begin curing immediately after form removal, cutback and finishing. The grout should be protected from extreme drying conditions for a minimum of 7 days. Cover the grout with wet burlap and maintain this wet protection for 7 days. It is recommended that under extreme conditions, the curing period be extended.

PACKING/ COVERAGE

ISOLA N-S GROUT is packed in 25 kg multi-paper bag and when mixed with 4.5 liters of water yield 13.6 liters.

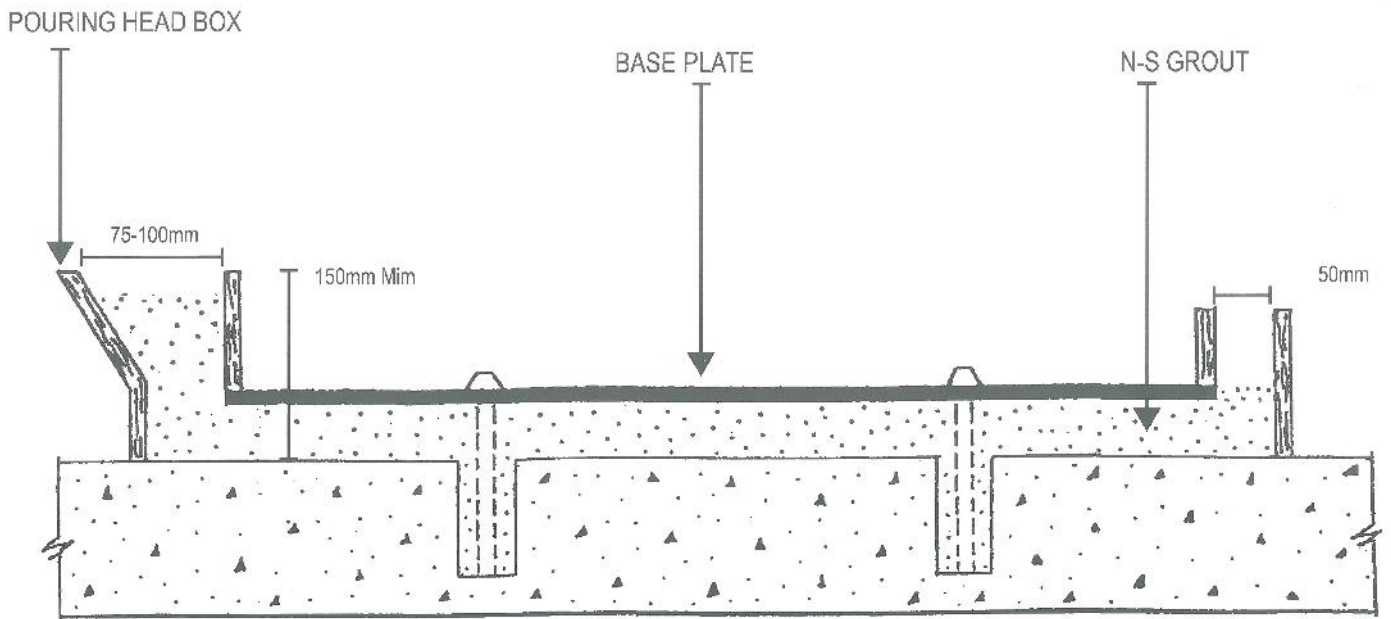
STORAGE / SHELF LIFE

Twelve months when stored in original packing in covered warehouse below 32° Celsius.

HEALTH SAFETY

Avoid inhalation of dust. Wear dust mask, Spills on the skin can be immediately washed with soap and water. Refer to MSDS for more information.

**TYPICAL SHUTTERING SYSTEM USED FOR FILLING THE GAP WITH
"ISOLA N-S GROUT"**



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Technical information, data are to be considered as typical values and not sales specification. Actual measured values may vary due to factors beyond our control. Indications concerning function and application of the products are empirical. Although the information is believed to be accurate, there is no warranty by ISOLA. None of the recommendations becomes part of the warranted quality of the products. Due to the fact that the conditions of individual use are beyond ISOLA's direct and continuous control, ISOLA disclaims all responsibility in connection with the use of its products and does not warrant against any loss direct or consequential

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