

CHEMICAL RELEASE AGENT FOR CONCRETE FORMWORK

DISCRETE

TECHNICAL DATA

1.0 DESCRIPTION

- 1.1 DISCRETE is a chemical release agent which reacts with the alkaline products of setting cement to form insoluble soaps. These soaps prevent any bond developing between the concrete and formwork and ensure a clean, even, blemish free surface with minimum voids.
- 1.2 The surface quality of concrete is controlled to a large extent by the release agent used on the formwork. Straight mineral or vegetable oils often cause surface pocking and water phased oil emulsions commonly give rise to staining and efflorescence. Some oils frequently make it difficult if not impossible, to achieve good bond of subsequent surface coatings, paints, rendering etc. The use of DISCRETE avoids these problems.
- 1.3 The principal components of the cement which react with DISCRETE are tri-calcium silicate and tri-calcium aluminate. DISCRETE, therefore, is less effective with low heat cement which contains a lower proportion of these compounds.
- 1.4 DISCRETE does not affect the natural bonding characteristics of paint, plaster, and other cementitious coatings. On surfaces not subjected to weathering, (eg interior) wash the surface with water containing a little detergent, or brush down thoroughly.
- 1.5 A further characteristic of DISCRETE is that it affords protection to the formwork itself by in the case of steel, inhibiting rust, and in the case of timber, impregnating the timber rendering it waterproof and resistant to rot.
- 1.6 DISCRETE contains a transient red dye to ensure uniform application and maximum coverage.

2.0 PHYSICAL PROPERTIES

2.1 Colour	Transparent Red
2.2 Specific Gravity	0.84
2.3 Flashpoint	66°C
2.4 Viscosity	Low (Sprayable)
2.5 Toxicity	Non toxic
2.6 D.G. Classification	3.1D
2.7 Shelf Life	Unlimited in original sealed containers
2.8 Coverage	Timber Formwork.....up to 19m ² /litre Metal Formwork.....up to 24m ² /litre

3.0 USES

DISCRETE is effective on all types of moulds and formwork as well as being suitable for tilt slab construction work. DISCRETE sprayed daily onto mixers, hoist buckets, wheelbarrows and all other equipment and machinery on which concrete may adhere, will keep the concrete soft and easily removed. Tests have shown that the spraying of mixers with this type of release agent has no effect on the concrete used.

The information contained in this data sheet, is to the best of our current knowledge, true and accurate, but any recommendations or suggestions which may be made are without liability on our part, since the conditions of use are beyond our control. Buyers and users are urged to make their own assessment of our products under their own conditions and for their own requirements. Fraser Brown & Stratmore Ltd reserves the right to alter formulations without notice. Properties as stated were determined under controlled laboratory conditions.

FBS 5021000

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DISCRETE

TECHNICAL DATA Continued

4.0 APPLICATION

- 4.1 Preferably by spray which will permit the rates of coverage to be obtained. Brush application may also be employed but the material should be well brushed out to obtain the most economic and effective results.
- 4.2 Being a chemical release agent, DISCRETE does not rely for its effectiveness on quantity, and is still active although the formwork may appear dry. Do not over apply to new and porous wood.
- 4.3 Formwork is best treated before being erected, thus avoiding contamination of reinforcement. Should reinforcement become coated with DISCRETE by accident, it should be painted with cement slurry to react with the DISCRETE and this slurry should be brushed off immediately before the concrete is poured.
- 4.4 DISCRETE should be applied to the formwork prior to each use, but once applied, can be exposed to normal weather conditions for up to two weeks in the case of timber forms and up to three weeks in the case of steel forms. On exposure for longer periods than these, a further application of DISCRETE should be made.
- 4.5 To reduce build-up of residue on steel moulds in precast works DISCRETE may be diluted up to 50% with Kerosene. Where moulds are rusty or have a build up of old concrete, they should be liberally coated with DISCRETE and left overnight: before use they should be cleaned down and then scrubbed with a 50% mixture of DISCRETE and lighting Kerosene. This will clean the working faces and DISCRETE can be used in the usual way.
- 4.6 TILT SLAB CONSTRUCTION
 - 4.6.1 DISCRETE is an excellent release agent and bond breaker for tilt and lift slab work.
 - 4.6.2 If the surface on which the panels are to be poured is less than 1 week old it is essential that the surface first be coated with FRACURE Concrete Curing Compound. Coat the whole working area with DISCRETE, construct the boxing and apply a further thin coating of DISCRETE to both boxing and floor immediately prior to placing reinforcing. Subsequent pours cast on the same site will need only one thin spray of DISCRETE.
 - 4.6.3 If hardening or other surface treatments have been used on the floor slab do not use DISCRETE without first applying FRACURE Concrete Curing Compound. Alternatively obtain advice from the manufacturers. Some chemical floor treatments may react with DISCRETE and affect its bond-breaking capacity.

5.0 PACKAGING

4, 20 and 210 litres.

Refer to Material Safety Data Sheet for handling and first aid information.

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