

# Expanform\* Concentrate



CONSTRUCTION CHEMISTRY

## Chemical mould release agent

### Uses

- For quick, clean and easy stripping of moulds and formworks.
- For high quality, fair-faced and stain-free concrete

### Advantages

- Minimises surface blemishes and staining, promotion high quality fair-faced concrete even with white cement.
- Ensures easy release, reducing damage and improving efficiency of production.
- Reduces opportunity of damage of formwork, extending usable life.
- Minimises cleaning of formwork before re-use.
- Suitable for use with virtually all types of formwork.
- Inhibit corrosion of steel formwork.

### Standards compliance

Category 5: Chemical release agent (Concrete Society: Notes on formwork release agents and coatings. April 1981)

### Description

Expanform\* Concentrate chemical mould release agent is a concentrated blend of mineral oils and selected additives. Expanform\* Concentrate must be pre-blended prior to site use.

On the mould, blended Expanform\* provides a chemical release action that is superior to that provided by normal oil based release agents (Concrete Society categories 1 to 4). Entrapment of air bubbles at the mould surface is minimised, reducing surface blemishes and substantially reducing remedial costs.

As well as improving cast concrete surfaces blended Expanform\* also minimises damage to form surfaces. Corrosion on steel moulds is reduced. On all mould types the easier release and reduced residue minimise the chance of damage to the mould surface during stripping and cleaning. This extends the life of the surface and reduces the frequency of concrete defects caused by damage to the mould face.

### Technical support

Expanchem Fospak provides a technical advisory service for on-site assistance and advice on admixture selection, evaluation trials and dispensing equipment

### Properties

**Specific gravity** : Typically 0.82 at 20 °C

Expanform\* Concentrate may be used on suitably sealed timber and polyurethane coated, steel, GRP and other resinous formwork surfaces.

### Instructions for use

#### Mould preparation

All moulds, new or used, must be cleaned of surface deposits of rust, concrete, oil or other materials. Inadequate cleaning may lead to surface blemishes due to the adhering material. The use of a proprietary chemical degreaser or acid cleaning is recommended.

#### Blending

Prior to use, Expanform\* Concentrate must be pre-blended with Diesel at the rate of 4.5 liter Expanform\* Concentrate to 200 liter of Diesel. Mix thoroughly prior to site use.

#### Application

If only limited use of the formwork is envisaged, new timber moulds may be coated directly with blended Expanform solution. If forms are regularly re-used the surface should initially be coated with a suitable polyurethane sealer. This provides increased protection to the timber surface, improves ease of cleaning and prevents the buildup of large residual levels of release agent in the timber of the form which may lead, over time, to increased surface dusting or retardation.

Blended Expanform can be applied by all normal methods, including brush, sponge and conventional spray. Where suitable, spray application is recommended. Non-absorbent surfaces require a single application. New, unsealed, timber surfaces should be re-coated if delay in use of the mould leads to absorption of the release agent into the timber.

#### Coverage rate

Depending on the porosity and texture of the mould surface, typical coverage rates of 20 to 60 m<sup>2</sup> /liter (0.015 to 0.050 liters/m<sup>2</sup>) will be obtainable from blended Expanform solution.

Best results will be obtained with the thinnest practical coating. Over application should be avoided. Excessive application on flat surfaces or which leads to pooling of release agent in the corners of forms is uneconomic and can lead to surface dusting or, in worst cases, surface retardation.



CONSTRUCTION CHEMISTRY

### After stripping or de-moulding

After use, the formwork or mould should be brushed or wiped clean of any excess dust prior to reapplication of blended Expanform solution for the next use of the mould. The use of blended Expanform solution minimises the amount of time and effort required for this process.

### Repair of moulds

If, after extended use, mould surfaces require repair or re-coating with polyurethane sealer, all residual traces of blended Expanform solution must be removed to ensure complete adhesion. This is best affected by using a strong industrial detergent together with stiff brushing, followed by thorough rinsing with clean water.

### Limitations

For application temperatures in excess of 60°C refer to the Expanchem Fospak Technical Department.

### Estimating

### Packing and Coverage

#### Packing:

**Expanform\* Concentrate:** 4.5 liter Plastic Can

#### Coverage:

**Expanform\* Concentrate:** 20-60 m<sup>2</sup> /liter (Blended)

### Precautions

### Health and safety

It should not be swallowed or allowed to come into contact with skin and eyes.

Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately do not induce vomiting.

### Cleaning and disposal

Spillages of Expanform\* Concentrate should be absorbed onto sand, earth or vermiculite and transferred to suitable containers.

The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.

### Storage

Expanform\* Concentrate has a minimum shelf life of 12 months provided the temperature is kept within the range of 2°C to 50°C. Should the temperature of the product fall outside this range then contact your local Expanchem Fospak office for advice.

\* Denotes the trademark registered.

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