



# SPRAYSET HBP

## Non-caustic admixture for sprayed concrete and shotcrete

### USES

- Used to enable a high build of sprayed concrete, shotcrete and gunite
- It provides set acceleration and reduces rebound

### Advantages

- Low rebound due to controlled set
- No adverse affect on strength
- High build up with minimal slump ensures faster coverage rates
- Safe to handle

### Standards Compliance

**SPRAYSET HBP** does not contravene requirements of ACI 506-66 Recommended Practice for Shotcreting. Concrete Society Specification for Sprayed Concrete.

### Description

**SPRAYSET HBP** is a chloride free non-caustic admixture for sprayed concrete, shotcrete and gunite. It is supplied as a powder which is added to the mix to impart properties of high build and low rebound.

### Technical Support

**CHRYSO**<sup>®</sup> provides a technical advisory service for on site assistance and advice on admixture selection, evaluation trials and dispensing equipment. Technical data and guidance can be provided for admixtures and other products for use with fresh and hardened concrete.

### Typical dosage

The optimum dosage of **SPRAYSET HBP** to meet specific requirements must always be determined by trials using the materials and conditions that will be experienced in use. This allows the optimisation of admixture dosage.

Typical dosage levels for **SPRAYSET HBP** for use in sprayed concrete, shotcrete and gunite lies in the range of 2 to 5kg/100 kg of cement.

### Use at other dosages

Dosages outside the typical range suggested on this sheet may be used if necessary and suitable to meet particular mix requirements, provided that adequate supervision is available. Compliance with requirements must be assessed through trial mixes. Contact the **CHRYSO**<sup>®</sup> Technical Service Department for advice in these cases.

### Properties

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Appearance : Off-white powder

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Chloride content : Nil to BS 5075

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pH : Neutral

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### Application instructions

#### Mixing

**SPRAYSET HBP** should be well dispersed in the dry mix, either as a bulk blend or with automatic dosing equipment while feeding the concrete mix. It is recommended that the moisture content of the mix is below 4% and that addition of **SPRAYSET HBP** occurs immediately prior to use.



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### Effects of overdosing

An overdose of double the intended amount of **SPRAYSET HBP** will have little effect on properties of build, set time, or strength gain compared to that normally obtained at the intended dosage.

### Curing

As with all cementitious systems, good curing practice should be maintained.

### Typical performance examples

Many variables in concreting materials and conditions can affect the selection and use of an admixture. Trials should be made using relevant materials and conditions in order to determine the optimum mix design and admixture dosage to meet specific requirements.

Typical performance examples from evaluation studies of **SPRAYSET HBP** are included on this data sheet. The values quoted are representative of results obtained and are provided as illustrations of the performance in different situations. Because of the variability of concreting materials, the results should only be taken as typical of the performance to be expected. Results quoted in individual examples should not be taken as necessarily directly comparable with other examples given here or results obtained elsewhere for **SPRAYSET HBP** or other products.

### Control mortar 1:3 OPC : Zone 3 Sand

All mixes w/c 0.5. All admix 5% on cement.

Table 1: High build/controlled set.

Mix	Build mm	Initial Set mins.	Final Set mins.
Control	50	150	240
Control +5% Sprayset HPB	100	15	30

Typical results, set time measured to BS 4550

Table 2: Strength gain (Compressive strength Mpa)

Mix	1hr	6hrs	24hrs	28days
Control	<1	1.25	17.8	46.3
Control +5% <b>SPRAYSET HBP</b>	<1	1.75	19.2	46.4

Typical compressive strengths when tested in accordance with BS 6319.

### Estimating – packaging

**SPRAYSET HBP** is available in 25kg bags

### UN Packaging regulations

To comply with current regulations, all products of a hazardous nature that are involved in a sea crossing as part of the delivery requirements must be packed in United Nations Approved receptacles.

When a known sea crossing is involved **CHRYSO** will supply in the correct UN packaging. Where **CHRYSO** are only requested to deliver within the South African mainland, but the purchaser intends to ship on, it is incumbent on the purchaser to specify that UN packaging is required at the time of placing the order. Otherwise, once delivery is received, the responsibility is that of the purchaser. The use of UN packaging may affect the selling price of products. Refer to the local **CHRYSO** office or representative.

### Storage

#### Shelf life

**SPRAYSET HBP** has a minimum shelf life of 12 months if kept in a dry store in the original, unopened bags.

#### Storage conditions

Store in dry conditions in the original, unopened bags. If stored at high temperatures and/or high humidity conditions the shelf life may be reduced.



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### PRECAUTIONS

#### Health and Safety

**SPRAYSET HBP** is non-caustic. It should not be swallowed or allowed to come in 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.

For further information consult the Material Safety Data Sheet available for this product.

#### Fire

**SPRAYSET HBP** is non-flammable

#### Cleaning and disposal

Spillages of **SPRAYSET HBP** should be hosed down with water.

#### Additional information

**SPRAYSET HBP** was previously known as Conplast HB.

The information contained in this document is given to the best of our knowledge and results from extensive testing. However, it cannot, under any circumstances be considered as a warranty involving our liability in case of misuse. Tests should be carried out before any use of the product to ensure that the methods and conditions of use of the product are satisfactory. Our specialists are at the disposal of the users in order to help them with any problem encountered.