

# CHRYSO® Optima IR 280

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### Superplasticizer – High Range Water Reducer

#### ■ Features

**CHRYSO® Optima IR 280** is a new generation superplasticizer – high range water reducer, based on modified polycarboxylate.

**CHRYSO® Optima IR 280** is especially recommended for concrete requiring high early age and long term strengths, whilst maintaining the workability.

**CHRYSO® Optima IR 280** enables the production of concrete with very low W/C ratios.

**CHRYSO® Optima IR 280** enables the production of self-leveling concrete.

#### ■ Benefits

- Enhances the workability retention of concrete in hot climates.
- High water reduction ability.
- The dispersion properties of **CHRYSO® Optima IR 280** allow the user to optimise the cement content when a specified mechanical strength is required.

#### ■ Areas of Application

**CHRYSO® Optima IR 280** is recommended for all concrete mixes where water content, improved cementitious material performance, high workability retention and very high strengths characteristics are desirable.

1. All types of cement
2. Heavy prefabrication
3. High performance concrete, ultra high performance concrete
4. Pre-stressed concrete
5. Ready-mix concrete
6. Concrete of humid, plastic or fluid consistency
7. Self-levelling concrete
8. High strength concrete with high workability retention
9. Compatible with Micro silica, GGBS and Fly Ash.

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### ■ Description:

#### Characteristics:

**CHRYSO® Optima IR 280** is a chemically stable liquid.

1. Nature : liquid
2. Colour : Pale yellow
3. Density :  $1.100 \pm 0.020$
4. pH :  $5 \pm 2$
5.  $Cl^-$  ion content : nil to EN 934 and BS 5075

**CHRYSO® Optima IR 280** does not contain any purposely added calcium chloride or other chloride based components. It will not promote or contribute to corrosion of reinforcing steel in concrete.

#### Packaging:

- Bulk
- IBC: 1000 L
- Drums : 215 L
- Pails: 20 L

#### Standard specifications:

Conforms to ASTM C 494 Type A, F and G and BS EN 934-2

### ■ Directions for use:

#### Dosage

between 0.3 and 2.0 kg per 100 kg of cement. A 0.8 % dosage of the product to the weight of cement is commonly used.

**CHRYSO® Optima IR 280** can be added to the water before mixing the concrete. However, it can be added to the concrete after mixing.

Dosage rates of **CHRYSO® Optima IR 280** are dependent upon desired concrete performance characteristics and variables including cement quantity and chemistry, concrete temperature and curing conditions.

Because local job conditions vary, please contact your local CHRYSO sales representative for further assistance if using outside recommended dosage ranges.

#### Compatibility

**CHRYSO® Optima IR 280** is compatible with all types of Portland cement, class C and F fly ash, slag, microsilica, calcium chloride, fibers and approved air entraining admixtures.

#### Precaution:

- Store away from frost. Use **CHRYSO® Optima IR 280** at a temperature superior to 0°C.
- Should the product freeze, its properties can be recovered after thawing and agitating thoroughly.
- This product must be stored in plastic containers, but not in PVC.
- Shelf life: 12 months.

### ■ Safety:

**CHRYSO® Optima IR 280** is not considered dangerous to handle. Please refer to the material safety data sheet for additional information.

#### About CHRYSO:

Worldwide leader for cement and concrete additives for over 70 years, **CHRYSO** has been designing, producing, specifying and delivering its added-value solutions to the construction professionals with outstanding innovation and quality service. As a result, **CHRYSO's** brand and products have been associated with the most prestigious and demanding construction projects over the globe.

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