

# CHRYSO®Plast IR 209

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### Water Reducing Plasticiser

#### ■ Features

**CHRYSO®Plast IR 209** is a concrete admixture which has been specifically formulated to promote dispersion of particles in concrete, resulting in a major improvement in the workability.

**CHRYSO®Plast IR 209** optimizes the dosage of cement required to obtain a given concrete compressive strength. For an equivalent plasticity and after reducing the quantity of mixing water:

- the concrete is denser;
- there is a reduced capillary action;
- depending on the dosage, there is an increase in compressive strength after 24 hours.

#### ■ Benefits

- Enhances the workability retention of concrete in hot climates.
- Water reduction ability.
- The dispersion properties of **CHRYSO®Plast IR 209** allow the user to optimise the cement content when a specified mechanical strength is required.
- **CHRYSO®Plast IR 209** has water repellent properties and can therefore be used to reduce the permeability of the concrete.

#### ■ Areas of Application

**CHRYSO®Plast IR 209** 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. Ready-mix concrete with stable workability
3. Concrete of humid or plastic consistency
4. Pumped concrete
5. Pre-stressed concrete
6. Heavy prefabricated elements

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### ■ Description:

#### Characteristics:

**CHRYSO®Plast IR 209** is a chemically stable liquid.

1. Nature :	liquid
2. Colour :	Brown
3. Density :	1.14 ± 0.020
4. pH :	6 ± 2
5. Cl <sup>-</sup> ions content:	nil to EN 934 and BS 5075

**CHRYSO®Plast IR 209** 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, B and D and BS-EN 934-2

### ■ Directions for use:

#### Dosage

between 0.3 and 2.0 kg per 100 kg of cement. The optimum dosage of **CHRYSO®Plast IR 209** can only be established after trial tests, taking into account local conditions, materials and specification requirements.

**CHRYSO®Plast IR 209** is completely miscible in water. It can be added to part or all of the mixing water depending on the required plasticity. The correct quantity of **CHRYSO®Plast IR 209** should be measured using a recommended dispenser.

For ready-mix concrete, **CHRYSO®Plast IR 209** can be added into the truck mixer just before placing the concrete, then mix again for at least 2 min before pouring.

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

#### Compatibility

**CHRYSO®Plast IR 209** is compatible with all types of Portland cement, class C and F fly ash, slag, micro silica, calcium chloride, fibers and approved air entraining admixtures.

#### Precaution:

- Store away from frost. Use **CHRYSO®Plast IR 209** at a temperature superior to 0°C.
- Should the product freeze, its properties can be recovered after thawing and agitating thoroughly.
- Shelf life: 12 months.

### ■ Safety:

**CHRYSO®Plast IR 209** 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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**CHRYSO®Plast IR 209**

**Producer**

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**1. Identification of the product and the company**

Identification of the product: Liquid.

Company identification: See producer.

Trade name: **CHRYSO®Plast IR 209**

Type of product: Concrete and mortar admixture.

Use: Industrial.

**2. Information on ingredients**

Lignosulfonate Organic Polymer – CAS No: 8061-52-7

**3. Hazards identification**

Symptoms relating to use

- Inhalation: Overexposure to vapors may result in: Headache. Cough.
- Skin contact: Repeated or prolonged skin contact may cause irritation.
- Eye contact: Eye irritant upon direct contact.
- Ingestion: Must not come into contact with food or be consumed. Swallowing a small quantity of this material presents some health hazard. Abdominal pain, nausea

**4. First aid measures**

- Inhalation: Assure fresh air breathing.  
Obtain medical attention if breathing difficulty persists.
- Skin contact: Wash skin thoroughly with mild soap and water.  
Seek medical attention if irritation develops.
- Eye contact: Rinse immediately with plenty of water.  
Seek medical attention immediately.
- Ingestion: Rinse mouth. DO NOT INDUCE VOMITING. Seek medical attention immediately.

**5. Fire - fighting measures**

- Extinguishing media: Carbon dioxide. Foam.
- Protection against fire: Wear proper protective equipment.  
Do not enter fire area without proper protective equipment, including respiratory protection.
- Special procedures: Exercise caution when fighting any chemical fire.

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**CHRYSO®Plast IR 209****6. Accidental release measures**

- Personal precautions: Equip cleanup crew with proper protection.
- Environmental precautions: Prevent entry to sewers and public waters.  
Notify authorities if liquid enters sewers or public waters.
- After spillage and/or leakage: Clean up any spills as soon as possible, using an absorbent material to collect it.

**7. Handling and storage**

- Storage: Store in dry, well-ventilated area. Keep container closed when not in use.
- Handling: Ensure prompt removal from eyes, skin and clothing. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.

**8. Exposure controls | personal protection**

Personal protection



- Respiratory protection: Where exposure through inhalation may occur from use, approved respiratory protection equipment is recommended.
- Hand protection: Gloves.
- Skin protection: Wear proper protective equipment.
- Eye protection: Goggles.
- Ingestion Industrial: Don't eat or drink.
- hygiene: Provide good ventilation in process area to prevent formation of vapor.

**9. Physical and chemical properties**

- Physical state: Liquid
- Color: Brown
- Odor: Characteristic
- pH value: 4.0 to 8.0
- Density: > 1
- Solubility in water: Complete

**10. Stability and reactivity**

Hazardous reactions: None under normal conditions.

**11. Toxicological information**

Rat oral LDSO [mg/kg]: No data available.

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**CHRYSO®Plast IR 209**

**12. Ecological information**

LCSO-96 Hour - fish [mg/l] : No data available.

**13. Disposal considerations**

Disposal: Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container at hazardous or special waste collection point.

**14. Transport information**

General information: Not regulated.

**15. Regulatory information**

Symbol(s) R: None.

Phrase(s) S: None.

Phrase(s): None

**16. Other information**

Further information: None.

The contents and format of this MSDS are in accordance with EEC Commission Directive 2001/58/EC.

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