

# KIMIA O - 790

## Technical Data Sheet



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Manufacturer of unsaturated polyester resin

## Unsaturated polyester resin Orthophthalic Polyester Resin

### Product Description:

Kimia O-790 is a pre-promoted (amine-accelerated) orthophthalic based Unsaturated Polyester Resin with low viscosity, very good mechanical properties and outstanding filler binding power for ambient temperature cure with MEK peroxide.

### Characteristics and Advantages:

- Very good mechanical properties
- Low viscosity
- Outstanding filler binding power

### Uses:

- Mastic and stone adhesive for stone industries

### Technical Properties:

#### Physical data in a liquid state at 25 C

| Properties                  | Unit              | Value           | Test method |
|-----------------------------|-------------------|-----------------|-------------|
| Appearance                  | NA                | Clear, Greenish | NA          |
| Color                       | Gardner           | NA              | ASTM D1544  |
| Viscosity (at 25°C)         | mPa.s (cP)        | 300-450         | ISO 2555    |
| Density (at 23°C)           | g/cm <sup>3</sup> | 1.1227          | ASTM D1475  |
| Acid number                 | mg KOH/g          | Max 26          | ASTM D1639  |
| Solid content               | %                 | 63 ± 2          | ASTM D1259  |
| Gel time*                   | min               | 4-9             | ASTM D2471  |
| Curing time                 | min               | 4-8             | ASTM D2471  |
| Peak exothermic temperature | °C                | Max 210         | ASTM D2471  |
| Water absorption            | wt%               | Max 0.3         | ISO 62      |
| Flash point (open cup)      | °C                | 20              | ASTM D92    |

This information is continuously measured and considered a part of the product's technical specifications, and their presence is only for a better description of the product.

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### Typical non-reinforced casting properties

|                                  |     |         |            |
|----------------------------------|-----|---------|------------|
| Tensile strength                 | MPa | Min 65  | ISO 527-2  |
| Tensile elongation               | %   | 5.7     | ISO 527-2  |
| Tensile modulus                  | MPa | 944     | ISO 527-2  |
| Flexural strength                | MPa | Min 120 | ISO 178    |
| Flexural modulus                 | MPa | 3704    | ISO 178    |
| Heat distortion temperature(HDT) | °C  | Min 70  | ASTM D648  |
| Hardness (Barcol)                | NA  | Min 44  | ASTM D2583 |
| Linear shrinkage                 | %   | Max 1.4 | ASTM D2566 |

The usual protective measures employed during the handling of Unsaturated Polyester Resins should be observed. Further product safety information can be obtained from our Material Safety Data Sheet which is available on request.

**Packaging:** 200 kg (net) in steel drums

**Storage:** Store in a cool place below 25 °C and away from moisture and direct sunlight. Under the above-mentioned storage conditions, the shelf life of the resin will be at least 6 months ex-works.