

# BUP 640

## Unsaturated Polyester Resin

### Orthophthalic Polyester Resin

#### Product Description:

BUP 640 is an un-promoted orthophthalic based unsaturated polyester resin with very low color, high solid and viscosity, good flexibility, transparency and mechanical properties for ambient temperature cure with MEK peroxide.

#### Characteristics and Advantages:

- Very low color
- High solid and viscosity
- Good flexibility and transparency
- Good mechanical properties

#### Uses:

- Manufacturing buttons
- Manufacturing embedded parts
- Highly transparent castings

#### Technical Properties:

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

These data are measured for each lot by our QC lab before its release.

Properties	Unit	Value	Test method
Appearance	NA	Clear	NA
Color	Gardner	Max 0.3	ASTM D1544
Viscosity (at 25°C)	mPa.s (cP)	1200-1700	ISO 2555
Density (at 23°C)	g/cm <sup>3</sup>	1.1678	ASTM D1475
Acid number	mg KOH/g	Max 25	ASTM D1639
Solid content	wt%	71±2	ASTM D1259
Gel time*	min	8-12	ASTM D2471
Curing time	min	6-10	ASTM D2471
Peak exothermic temperature	°C	Max 170	ASTM D2471
Water absorption	wt%	Max 0.3	ISO 62
Flash point (open cup)	°C	22	ASTM D92

\* Promoter: 0.25 g Cobalt (1%) in 100 g resin @25 °C

Initiator: 2 g MEKP (50%) in 100 g resin

##### Typical non-reinforced casting properties

These data are not subject to routine monitoring or part of the specifications; they are only reported for a better product description.

Properties	Unit	Value	Test method
Tensile strength	MPa	Min 45	ISO 527-2
Tensile elongation	%	3.41	ISO 527-2
Tensile modulus	MPa	440	ISO 527-2
Flexural strength	MPa	Min 90	ISO 178
Flexural modulus	MPa	1650	ISO 178
Heat distortion temperature (HDT)	°C	Min 55	ASTM D648
Hardness (Barcol)	NA	Min 35	ASTM D2583
Linear shrinkage (ΔL/L)	%	Max 1	ASTM D2566

**Product safety and Environmental protection:**

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:** 225 kg (net) in steel drums

**Storage:** Store in a cool place below 25 °C and away from moisture and direct sunlight. Under above mentioned storage conditions, the shelf life of the resin will be at least 1 month ex-works.

**Disclaimer:** The information and in particular the recommendations relating to the application and use of Bonyan Kala Chemie products are given in good faith based on our current knowledge and expertise of the products when properly stored, handled and used under normal conditions within their shelf life. In practice, the differences in materials, chemistries and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed from [www.bonyankala.com](http://www.bonyankala.com).