



# SYNPOL PRODUCTS PRIVATE LTD.

Regd Office & Factory: 77, G.V.M.S. AUDYOGIC VASAHAT LTD.,  
ODHAV, AHMEDABAD – 382 415, INDIA

PRODUCT CODE : HARDENER / 04.26

## Hardener 640

TYPE : Phenalkamine based epoxy hardener.

DESCRIPTION : Ambient temperature curing hardener for high solids epoxy coatings.

### SPECIFICATIONS :

1) Appearance	Clear dark redish brown viscous liquid.
2) Specific gravity @ 25 <sup>0</sup> C.	0.97 - 0.99
3) Viscosity @ 25 <sup>0</sup> C., poises	20 - 40
4) Colour value, gardner	18 max.
5) Amine value by HClO <sub>4</sub> method, mg of KOH/gm	500 - 550
6) Mixing ratio with 100 parts of	
1) Synpol 200	40 - 60
2) Synpol 450XX	12 - 18
7) Pot life of 140 gm. mix with Synpol 200 @ 25 <sup>0</sup> C., minutes.	30 - 50

### SOLUBILITY :

Hardener 640 is soluble in aromatic hydrocarbons, higher alcohols, ketones and insoluble in aliphatic hydrocarbons and water.

Recommended Solvent combination for Hardener 640 along with Synpol 450 XX is as follows,

	<u>Parts by weight</u>
Xylene	40
n-Butanol	20
MEK	20
MIBK	20

### COMPATIBILITY :

Hardener 640 is compatible with all grades of modified and unmodified liquid epoxy resins and also compatible with reactive polyamides, aliphatic and aromatic amine based epoxy adduct hardeners.

### APPLICATIONS :

Hardener 640 offers outstanding features such as solvent free or high solids systems, cures completely even in presence of moisture and at low ambient temperatures, non critical mixing ratio, adequate adhesion on poorly prepared surfaces and even on plastics, high water and chemical resistance.

Hardener 640 finds application in 100% solids epoxy coatings for use as heavy duty maintenance coatings as well as marine coatings. It offers low viscosity, superior chemical resistance and adequate flexibility in above applications. Further it offers very good handling characteristics, fast cure rates and safer handling properties. It also finds further application in masonry coatings, tank and pipe coatings, concrete repair coatings and in certain adhesive applications. Automotive adhesives can be suitably formulated with Hardener 640.

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DISCLAIMER: Above Specifications are subject to change without prior notice and company reserves the right to modify the same at any time

**MATERIAL SAFETY DATA :**

Product name	Hardener 640
Flash point ° C. (Abel closed cup)	Above 105
Flammability	Combustible.
Toxicity	Moderate toxic. Avoid contact with skin. It may cause dermatitis in sensitive people. If it is exposed to skin, it should be washed off with soap and water
Handling	Keep away from sources of ignition, provide all electric connections of flameproof design. Wear safety glasses, rubber gloves and protective clothings.
Emergency treatment and measures	
1 Hygienic precautions	Adequate ventilations.
2 Hygienic treatments (First Aid)	Flush eyes thoroughly with water. Apply ophthalmic cortisone for conjunctivitis and keratities. Wash out contaminated skin with soap and water. Gastric lavage (stomach wash), if swallowed, followed by saline catharsis.
3 Fire precautions (in case of outbreaks)	Use dry chemical or carbon dioxide. Water spray may help to keep containers cool, to dilute leaked resins and to diffuse vapours.
Spills and leakage	Absorb liquid materials in sand and collect solid material and burn under hood in incinerator.
Disposal and waste treatment	Spray into furnace under controlled conditions.

**STORAGE :**

Hardener 640 will absorb moisture and react with carbon dioxide from the air, if left in open containers. Therefore Hardener 640 must be stored in its original airtight container in cool place under shade and must not be exposed to undue heat or humidity. The properties are so adjusted to have storage stability of minimum 6 months.

**PACKING :**

25 kgs. M.S. drums, 50 kgs. Plastic carboys and 200 kgs. M.S. barrels.

**DISCLAIMER :**

Information in this literature is to the best of our knowledge true and accurate. However, since conditions under which our products may be used are beyond our control, recommendations are made without warranty or guarantee.

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