

## Advanced Materials

# HYPOX® RA 95 #

### Reactive Toughener and flexibilizer

### DATA SHEET

#### Very High Acrylonitrile Containing Solid Elastomer. Modified Bisphenol A Epoxy Resin

#### Properties

HyPox RA95 is a high-viscosity bisphenol A epoxy resin toughened butadiene-acrylonitrile elastomer. Based on a solid CTBN elastomer, HyPox RA95 combines epoxy functionality with toughness and impact resistance. HyPox RA95 exhibits higher temperature performance and greater green strength than epoxy toughened with liquid CTBN. It is ideal for film adhesives possessing greater creep resistance over higher temperatures than resins based on liquid elastomers.

Blends of HyPox RA95 with most standard epoxy resins are possible, and it can be cured with all standard curing agents suitable for epoxy resins. Cure speed is comparable to standard liquid bisphenol A epoxy resins..

#### Applications

HyPox RA95 is excellent for 100% solids adhesives, composites, and coatings. It improves tack in prepregs and adhesives.

- High-temperature encapsulants/adhesives
- Prepregs and composites
- Impact resistance coatings
- Toughener for epoxy novolacs

#### Key data

##### Specified key data

Epoxy Equivalent Weight (ASTM D1652-90)	195 – 210	[g/eq]
Viscosity at 25 °C (Brookfield ASTM D2196-05)	150 000 – 550 000	[mPa s]
Viscosity at 52 °C (Brookfield ASTM D2196-05)	15000 - 30000	[mPa s]
Acid Value (ASTM D8045)	<0.2	
Gardner (ASTM D1544-80)	<4	

Specified key data are individually checked throughout and guaranteed.

##### Typical key data

Flash point (Pensky Martens, DIN 51758)	≥ 200	[°C]
Appearance	Opaque, Amber	
	Viscous Liquid	
CTBN content	5%	

Data which is described in this document as 'typical' is not analyzed on a regular basis and is given for information purposes only. Data values are not guaranteed or warranted unless if specifically mentioned.

# In addition to the brand name product denomination may show different appendices, which allows us to differentiate between our production sites: e.g. BD = Germany, US = United States, IN = India, CI = China, etc. These appendices are in use on packaging, transport and invoicing documents. Generally, the same specifications apply for all versions. Please address any additional need for clarification to the appropriate Huntsman contact.

<b>Storage</b>	<p>HYPOX® RA 95 should be stored in a dry place, preferably in the sealed original container, at temperatures between 2 and 40 °C. The product should not be stored exposed to direct sunlight.</p> <p>Keep away from food, drink and animal feeding stuff.</p>
<b>Handling precautions</b>	<p>HYPOX® RA 95 is not a primary skin irritant or sensitizer. However, as with any epoxy material, irritation can result from repeated or prolonged contact. The symptoms of this irritation may appear as a mild reddening or a more pronounced rash. It is, therefore, important to avoid skin contact where possible. Butyl rubber gloves, full eye protection and protective clothing are recommended.</p> <p>Skin contact: Wash well with soap and water. Remove contaminated clothing and wash thoroughly before reusing. It is recommended that resin not be removed from skin with solvents since solvents increase contact and encourage penetration. Moreover, solvents of themselves dry and crack the skin.</p> <p>Eye contact: Flush immediately with large quantities of water. Contact a physician.</p> <p>Refer to the Safety Data Sheet on HYPOX® RA95 for additional safety and health information. The SDS is revised as new data becomes available.</p>

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