

Advanced Materials

Aradur® 140[#]

Solventfree and solventbased coatings, Adhesives

DATA SHEET

	Polyamidoimidazoline																																																																						
Applications	Mainly with liquid epoxy resins such as Araldite® GY 250, PY 720, GY 783 for solvent-free or heavy-filled mastics, epoxy resin mortars or reaction adhesives. For application to steel or mineral substrates. When used with liquid or (preferably) solid epoxy resins or their solutions, such as Araldite GZ 7071 X 75, for the formulation of cold-curing, solvent-containing coatings. Main applications in the construction industry, but also in ship-building and for corrosion protection.																																																																						
Properties	Systems based on, for example, Araldite PY 720 and Aradur 140 make it possible to formulate heat-resistant epoxy resin mortars. In combination with solid epoxy resins or their solutions for cold-curing, solvent-containing lacquers featuring adequate working times, non-tacky films after pre-reaction, very high degrees of adhesion and flexibility along with good corrosion protection.																																																																						
Key data	<table><tr><td colspan="4">Specified key data</td></tr><tr><td>Aspect (visual)</td><td colspan="3">clear liquid</td></tr><tr><td>Colour (Gardner, ISO 4630)</td><td colspan="3">≤ 10</td></tr><tr><td>Amine number (ISO 9702)</td><td>370 - 410</td><td colspan="2">[mg KOH/g]</td></tr><tr><td>Viscosity at 75 °C (Rotary viscosity, ISO 3219)</td><td>300 - 600</td><td colspan="2">[mPa s]</td></tr><tr><td colspan="4">Specified key data are individually checked throughout and guaranteed.</td></tr><tr><td colspan="4">Typical key data</td></tr><tr><td>H⁺ active equivalent</td><td>~ 95</td><td colspan="2">[g/eq]</td></tr><tr><td>Density at 20 °C (ISO 1675)</td><td>0.96</td><td colspan="2">[g/cm³]</td></tr><tr><td>Flash point (Pensky Martens, ISO 2719)</td><td>≥ 200</td><td colspan="2">[°C]</td></tr><tr><td>Recommended mix ratio with Araldite GY 783</td><td>50</td><td colspan="2">[g/100g]</td></tr><tr><td>Gel time (Tecam, 250 g / 23 °C, Araldite GY 250/Aradur 140, 100:50 p.b.w.)</td><td>120</td><td colspan="2">min</td></tr><tr><td>As-supplied form</td><td colspan="3">liquid</td></tr><tr><td>Odour</td><td colspan="3">amine</td></tr><tr><td>Shelf life (at storage temperature between 2 - 40 °C) (see expiry date on original container)</td><td colspan="3">several years</td></tr><tr><td>Hazardous decomposition products (when disposed of in fire)</td><td colspan="3">carbon monoxide, carbon dioxide, nitrogen oxides and other toxic gases and vapours</td></tr><tr><td>Disposal</td><td colspan="3">regular procedures approved by local authorities</td></tr></table>			Specified key data				Aspect (visual)	clear liquid			Colour (Gardner, ISO 4630)	≤ 10			Amine number (ISO 9702)	370 - 410	[mg KOH/g]		Viscosity at 75 °C (Rotary viscosity, ISO 3219)	300 - 600	[mPa s]		Specified key data are individually checked throughout and guaranteed.				Typical key data				H ⁺ active equivalent	~ 95	[g/eq]		Density at 20 °C (ISO 1675)	0.96	[g/cm ³]		Flash point (Pensky Martens, ISO 2719)	≥ 200	[°C]		Recommended mix ratio with Araldite GY 783	50	[g/100g]		Gel time (Tecam, 250 g / 23 °C, Araldite GY 250/Aradur 140, 100:50 p.b.w.)	120	min		As-supplied form	liquid			Odour	amine			Shelf life (at storage temperature between 2 - 40 °C) (see expiry date on original container)	several years			Hazardous decomposition products (when disposed of in fire)	carbon monoxide, carbon dioxide, nitrogen oxides and other toxic gases and vapours			Disposal	regular procedures approved by local authorities		
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[#] 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.

Mix ratio	The optimum mix ratio of Araldite GY 250 and Aradur 140 is 100:50 parts by weight. For increased flexibility and therefore increased bond strength in adhesives, mix ratios of 100 parts of resin to 100 parts of Aradur 140 are possible but result in clear decrease in thermal stability – further testing of formulation strongly recommended. The mix ratio of Araldite GZ 7071 X 75 to Aradur 140 should be selected as 100:18 parts by weight. Deviations from this of up to 10 % are acceptable. In such cases a higher proportion of hardener provides increased flexibility and adhesion, while improved chemical resistance is achieved with a reduced proportion of hardener.
Storage	Aradur® 140 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. (see current edition of MSDS for latest update on storage)
Handling precautions	Mandatory and recommended industrial hygiene procedures should be followed whenever our products are being handled and processed. For additional information please consult the corresponding product safety data sheets.

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