HUNTSMAN

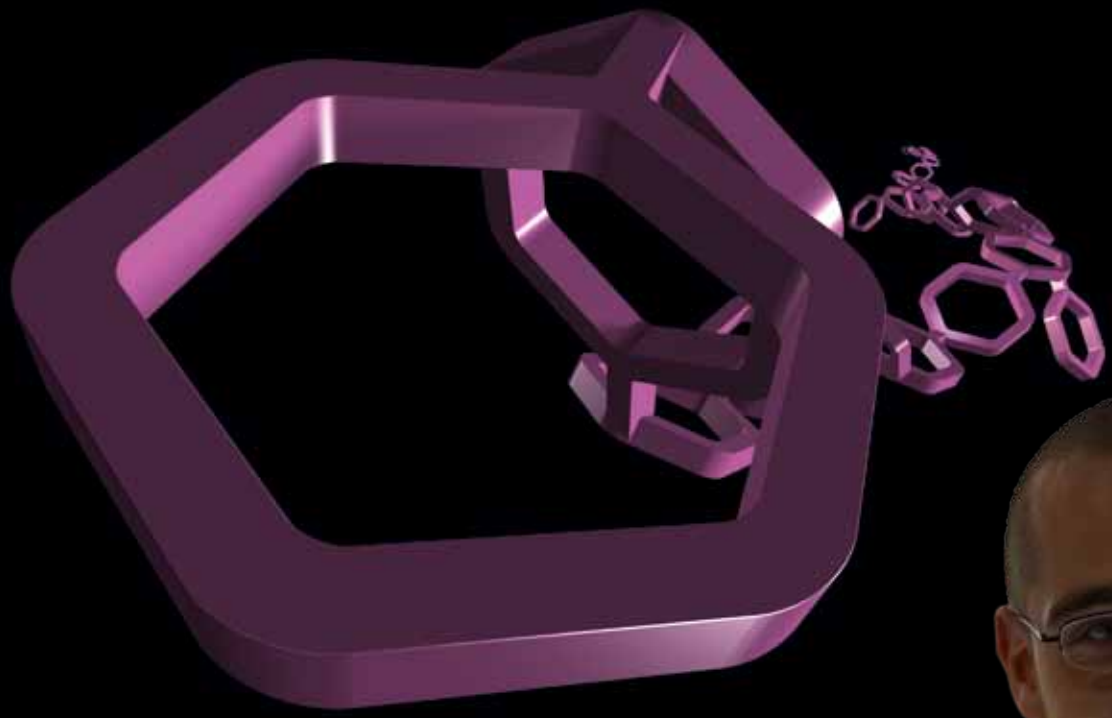
Enriching lives through innovation

Advanced Materials

Strengthen your system

Resins

Selector guide



Nomenclature

Resins
Huntsman Advanced Materials' registered trademark for commercial resins is Araldite®.

The two-letter code following the registered trademark has the following meaning:

First letter indicates the intended use of the product.
Example: Araldite® **P**Y 302-2 CH

- **B** Special resin for civil engineering applications
- **D** Modification product (reactive diluent, flexibilizer, matting agent, etc.)
- **G** Standard resin
- **P** Special resin
- **EPN** Epoxy phenol novolac
- **ECN** Epoxy cresol novolac

Second letter indicates the supply form.
Example: Araldite® P**Y** 302-2 CH

- **T** Solid product
- **Y** Liquid product
- **Z** Resin in solution, emulsion or dispersion form

The number following this letter code is the characteristic for the product name.
Example: Araldite® PY **302**-2 CH

In case of minor product changes, we indicate the actual version by a figure separated from the product number by a dash.
Example: Araldite® PY 302-**2** CH

In case of resin solutions a one- up to three-letter code behind the characteristic product number indicates a solvent (or solvent mixture).
Example: EPN 1180 **X 80** CH

This solvent code is followed by a number indicating the solid content of the product (in the example above it's 80% resin dissolved in xylene).

The last two letters indicate the country of origin, in this case CH for Switzerland.
Example: EPN 1180 X 80 **CH**

These appendices are in use on packaging, transport and invoicing documents but not within this selector guide.

Legend

Acronyms legend

- **BPA** Bisphenol A epoxy resin
- **BPF** Bisphenol F epoxy resin
- **FCA** Flow control agent (in %)

REACH

All the components of the products contained in this brochure have been preregistered under REACH.

Registered for REACH

Safety and handling precautions

The Material Safety Data Sheet (MSDS) should be consulted prior to handling any of the products listed here.

Product range

Additional products are available upon request.

Epoxy resins

Basic liquid resin

	Characteristics	Viscosity 25°C	Epoxy index	Epoxy equiv.		Color[1]
Unit/scale		mPa·s	Eq/kg	g/Eq		Gardner
Araldite® GY 240	BPA	7000 – 9000	5.45 – 5.56	180 – 183		≤ 2
Araldite® GY 250	BPA	10000 – 12000	5.30 – 5.45	183 – 189		≤ 2
Araldite® GY 260	BPA	12000 – 16000	5.20 – 5.49	182 – 192		≤ 3
Araldite® GY 261	BPA, high chlorine content	12500 – 17500	4.90 – 5.20	192 – 204		≤ 3
Araldite® GY 266	BPA	9500 – 12000	5.10 – 5.30	189 – 196		≤ 2
Araldite® GY 280	BPA, semisolid	450 – 700[2]	3.57 – 4.45	225 – 280		≤ 3[2]
Araldite® GY 2600	BPA	12000 – 14000	5.29 – 5.43	184 – 189		≤ 1

Basic solid resins – high molecular weight

	Characteristics	Viscosity[1] 25°C	Epoxy index	Epoxy equiv.		Color[1]
Unit/scale		mPa·s	Eq/kg	g/Eq		Gardner
Araldite® GT 6097	BPA type 7	1800 – 2600	0.53 – 0.59	1695 – 1885		≤ 1
Araldite® GT 6099	BPA type 9	5000 – 10000	0.34 – 0.42	2380 – 2941		≤ 2
Araldite® GT 6609	BPA type 9, low viscous	2700 – 4800	0.34 – 0.42	2380 – 2941		≤ 3
Araldite® GT 6610	BPA type 10, low viscous	5000 – 8000	0.26 – 0.34	2940 – 3845		≤ 2
Araldite® GT 6810-1	BPA type 10, modified	4000 – 7000	0.00 – 0.10	> 10000		≤ 3
Araldite® GT 7077	BPA type 7	1300 – 1900	0.61 – 0.67	1490 – 1640		≤ 1

Basic solid resins – medium and low molecular weight

	Characteristics	Viscosity[1] 25°C	Epoxy index	Epoxy equiv.	Mettler soft point	Color[1]
Unit/scale		mPa·s	Eq/kg	g/Eq	°C	Gardner
Araldite® GT 6063	BPA type 2.5	350 – 500	1.37 – 1.56	640 – 730	90 – 97	≤ 1
Araldite® GT 6064	BPA type 3.5	400 – 600	1.28 – 1.37	730 – 780	96 – 101	≤ 1
Araldite® GT 6071	BPA type 1	160 – 190	2.15 – 2.22	450 – 465	70 – 75	≤ 1
Araldite® GT 6084–2	BPA type 4	550 – 700	1.12 – 1.20	833 – 895	99 – 105	≤ 2
Araldite® GT 6703	BPA type 3	230 – 320	1.35 – 1.45	690 – 740	~ 87	≤ 2
Araldite® GT 7004	BPA type 3.5	500 – 600	1.33 – 1.40	714 – 752	95 – 101	≤ 1
Araldite® GT 7071	BPA type 1	200 – 250	1.90 – 2.00	500 – 525	77 – 82	≤ 1
Araldite® GT 7072	BPA type 2	280 – 340	1.68 – 1.75	570 – 595	82 – 90	≤ 1

Solid multifunctionals and ECNs

	Characteristics	Viscosity[1] 25°C	Epoxy index	Epoxy equiv.	Mettler soft point	Color[1]
Unit/scale		mPa·s	Eq/kg	g/Eq	°C	Gardner
Araldite® ECN 1280-1	Epoxy cresol novolac, functionality ~ 5.5	3000 – 5500[3]	4.45 – 4.85	205 – 225	75 – 85	≤ 6
Araldite® ECN 9699	Epoxy cresol novolac, functionality ~ 5.5	7000 – 10000[3]	4.45 – 4.85	205 – 225	80 – 100	≤ 6
Araldite® GT 7220	Modified epoxy novolac	460 – 670	1.83 – 1.93	520 – 545	~ 95	≤ 2
Araldite® GT 7255	Modified epoxy novolac	1000 – 1600	1.17 – 1.29	775 – 855	106 – 113	≤ 2

Specialty high performance multifunctional resins

	Characteristics	Viscosity 25°C	Epoxy index	Epoxy equiv.	Mettler soft point	Color
Unit/scale		mPa·s	Eq/kg	g/Eq	°C	Gardner
Araldite® MY 0500	Trifunctional epoxy resin	2000 – 5000	8.7 – 9.5	105 – 115	liquid	≤ 11
Araldite® MY 0510	Trifunctional epoxy resin	550 – 850	9.4 – 10.4	96 – 106	liquid	≤ 11
Araldite® MY 0600	Trifunctional epoxy resin	7000 – 13000	9.1 – 9.8	101 – 111	liquid	≤ 8
Araldite® MY 0610	Trifunctional epoxy resin	2000 – 4500	9.9 – 10.9	92 – 101	liquid	≤ 8
Araldite® MY 720	Tetrafunctional epoxy resin	8000 – 18000 at 50°C	7.5 – 8.5	117 – 134	semi solid	≤ 16
Araldite® MY 721	Tetrafunctional epoxy resin	3000 – 6000 at 50°C	8.6 – 9.1	109 – 116	liquid	≤ 16
Araldite® MY 790-1	Tetrafunctional epoxy resin	4000 – 5500	5.7 – 5.9	169 – 175	liquid	≤ 1
Araldite® MY 0816	Naphthalene epoxy	1500 – 2500 at 50°C	6.5 – 7.5	133 – 154	liquid	≤ 16
Tactix® 742	Trifunctional epoxy resin	~ 635 at 79°C	5.9 – 6.7	150 – 170	49	≤ 13
Tactix® 556	Multifunctional hydrocarbon epoxy novolac	~ 2250 at 79°C	4.2 – 4.6	215 – 235	53	≤ 16
Tactix® 756	Multifunctional hydrocarbon epoxy novolac	semi solid	3.7 – 4.1	245 – 265	77 – 87	≤ 16

Formulated solid resins

	Characteristics	Viscosity[1] 25°C	Epoxy index	Epoxy equiv.	Mettler soft point	Color[1]
Unit/scale		mPa·s	Eq/kg	g/Eq	°C	Gardner
Araldite® GT 1999	BPA-based resin FCA 2.5%	400 – 550	1.08 – 1.20	835 – 925	90 – 95	≤ 1
Araldite® GT 2874-1	BPA-based resin FCA 10%	350 – 550	1.15 – 1.35	740 – 870	85 – 95	≤ 2
Araldite® GT 6143	BPA-based resin FCA 2.5%	250 – 375	1.51 – 1.61	620 – 660	90 – 96	≤ 3
Araldite® GT 6450	BPA-based resin FCA 2%	350 – 500	1.37 – 1.56	640 – 730	91 – 94	≤ 2
Araldite® GT 7203	BPA-based resin FCA 2.5%	300 – 400	1.55 – 1.65	605 – 645	82 – 90	≤ 1

Solutions

	Characteristics	Viscosity 25°C	Epoxy index	Epoxy equiv.	Solids	Color
Unit/scale		mPa·s	Eq/kg	g/Eq	%	Gardner
Araldite® GZ 7488 N 50	High MWt. BPA in solution[4]	2000 – 5000	≤ 0.08	≥ 12500	49 – 51	≤ 4
Araldite® GZ 7488 V 40	High MWt. BPA in solution[5]	3000 – 6000	≤ 0.06	≥ 17000	39 – 41	≤ 4
Araldite® GZ 280 X 80	Semisolid BPA in xylene	600 – 850	3.10 – 3.40	290 – 323	79 – 81	≤ 3
Araldite® GZ 290 X 90	Modified semisolid BPA in xylene	1300 – 3700	3.30 – 3.70	270 – 305	89 – 91	≤ 6
Araldite® GZ 601 X 75	Solid BPA in xylene	5500 – 7500	1.60 – 1.80	555 – 625	74 – 76	≤ 2
Araldite® GZ 7071 X 75	Solid BPA in xylene	8000 – 13000	1.50 – 1.67	600 – 670	74 – 76	≤ 2

[1] 40 % in butylcarbitol
[2] 70 % in butylcarbitol
[3] 130°C, PF-A0445
[4] 50 % in methylethylketone/cyclohexanone/1-methoxy-2-propylacetate (81:11:8)
[5] 40 % in 1-methoxy-2-propylacetate/cyclohexanone (93:7)

Waterborne

Waterborne resins

	Characteristics	Viscosity 25°C	Epoxy index	Epoxy equiv.	Solids	Color
Unit/scale		mPa·s	Eq/kg	g/Eq	%	Gardner
Araldite® PY 33757	Emulsifiable, crystallization-resistant epoxy resin	5000 – 8000	5.50 – 5.80	172 – 182	100	≤ 3
Araldite® PZ 323	Aqueous dispersion of polyfunctional EPN resin	sl. thixotropic	4.00 – 4.50	222 – 250	75 – 78	white
Araldite® PZ 33757/67	Emulsified, crystallization-resistant epoxy resin	~ 230 at 25°C, sl. thixotropic	3.68 – 3.89	246	66 – 68	white
Araldite® PZ 3903-2	Aqueous dispersion of type 3 epoxy resin	8000 – 20000	1.25 – 1.40	715 – 800	53 – 58	white
Araldite® PZ 3907-1	Aqueous dispersion of type 7 epoxy resin	8000 – 20000	0.45 – 0.57	1800 – 2200	52 – 55	white
Araldite® PZ 3961-1	Aqueous dispersion of BPA type 1 resin	450 – 820 at 23°C	0.96 – 1.08	925 – 1048	51 – 55	white
Araldite® ECN 1400	Water-based epoxy cresol novolac resin	900 – 1500	4.10 – 4.61	217 – 244	38 – 42	white

Crosslinkers

	Characteristics	Viscosity 25°C	Epoxy index	Epoxy equiv.	Solids	Color
Unit/scale		mPa·s	Eq/kg	g/Eq	%	Gardner
Araldite® PT 910	Hardener for polyester or acrylic resin powder coatings	solid	6.50 – 7.10	141 – 154	100	white
Araldite® PT 912	Hardener for polyester or acrylic resin powder coatings	solid	6.50 – 7.10	141 – 154	100	white

Specialty epoxy resins and diluents

Bisphenol A with reactive diluent

	Characteristics	Viscosity 25°C	Epoxy index	Epoxy equiv.	Color
Unit/scale		mPa·s	Eq/kg	g/Eq	Gardner
Araldite® BY 157	BPA with difunctional reactive diluent	4200 – 5700	5.35 – 5.50	182 – 187	≤ 2
Araldite® BY 158	BPA with difunctional reactive diluent	280 – 360	6.20 – 6.50	154 – 161	≤ 3
Araldite® GY 253	BPA with difunctional reactive diluent	700 – 1400	5.40 – 5.80	172 – 185	≤ 2
Araldite® GY 257	BPA with monofunctional reactive diluent	500 – 650	5.20 – 5.50	182 – 192	≤ 3
Araldite® GY 279	BPA with monofunctional reactive diluent	800 – 1500	4.80 – 5.15	194 – 208	≤ 2
Araldite® GY 298	BPA with reactive flexibilizer	2000 – 4000	2.20 – 2.50	400 – 455	≤ 2
Araldite® GY 764	BPA with difunctional reactive diluent	350 – 550	5.30 – 5.60	179 – 189	≤ 2
Araldite® GY 776	BPA with monofunctional reactive diluent	2700 – 3800	5.10 – 5.40	185 – 196	≤ 2
Araldite® GY 784	BPA with monofunctional reactive diluent	1200 – 1600	4.80 – 5.20	192 – 204	≤ 2

Bisphenol A/F with reactive diluent

	Characteristics	Viscosity 25°C	Epoxy index	Epoxy equiv.	Color
Unit/scale		mPa·s	Eq/kg	g/Eq	Gardner
Araldite® GY 783	BPA/F with monofunctional reactive diluent	800 – 1100	5.10 – 5.40	185 – 196	≤ 2
Araldite® GY 793	BPA/F with monofunctional reactive diluent	650 – 750	5.00 – 5.40	185 – 200	≤ 2
Araldite® GY 1955	BPA/F with difunctional reactive diluent	4500 – 6500	5.40 – 5.80	172 – 185	≤ 2
Araldite® PY 3483	BPA/F with monofunctional reactive diluent	1000 – 1600	4.80 – 5.10	196 – 208	≤ 4

Bisphenol F and A/F pure

	Characteristics	Viscosity 25°C	Epoxy index	Epoxy equiv.	Color
Unit/scale		mPa·s	Eq/kg	g/Eq	Gardner
Araldite® GY 281	BPF	5000 – 7000	5.80 – 6.30	158 – 172	≤ 4
Araldite® GY 282	BPF	3300 – 4100	5.80 – 6.10	164 – 172	≤ 2
Araldite® GY 285	BPF	2000 – 3000	5.80 – 6.10	164 – 172	≤ 5
Araldite® PY 302-2	BPA/F, noncrystallizing	6500 – 8000	5.65 – 5.90	169 – 177	≤ 3
Araldite® PY 304	BPA/F	6500 – 8000	5.50 – 5.80	172 – 182	≤ 3
Araldite® PY 306	BPF, low viscosity	1200 – 1800	6.00 – 6.40	156 – 167	≤ 1
Araldite® PY 720	BPA/F	7000 – 9400	5.30 – 5.60	179 – 189	≤ 2

Epoxy phenol novolac

	Characteristics	Viscosity 25°C	Epoxy index	Epoxy equiv.	Color
Unit/scale		mPa·s	Eq/kg	g/Eq	Gardner
Araldite® EPN 1179	Semisolid EPN, functionality 2.5	1100 – 1700[1]	5.60 – 5.80	172 – 179	≤ 3
Araldite® EPN 1180	Semisolid EPN, functionality 3.6	20000 – 50000[1]	5.50 – 5.70	175 – 182	≤ 2
Araldite® EPN 1180 X 80	EPN in xylene	1200 – 2000	4.40 – 4.56	219 – 227	≤ 2
Araldite® EPN 1183	Medium viscosity, modified EPN, functionality 3.3	7000 – 13000	6.30 – 6.90	145 – 159	≤ 3
Araldite® EPN 9880	Semisolid EPN, functionality > 3	18000 – 25000[1]	5.40 – 5.84	171 – 185	≤ 5
Araldite® GY 289	Low-viscosity EPN, functionality 2.2	7000 – 11000	5.70 – 6.00	167 – 175	≤ 5
Araldite® PY 307-1	Medium-viscosity EPN, functionality 2.2	30000 – 50000	5.60 – 5.90	169 – 179	≤ 4

Reactive diluents

	Characteristics	Viscosity 25°C	Epoxy index	Epoxy equiv.	Color
Unit/scale		mPa·s	Eq/kg	g/Eq	Gardner
Araldite® DY-C	Diglycidylether of cyclohexane dimethanol	60 – 90	5.60 – 6.00	167 – 179	≤ 2
Araldite® DY-CNO	Monofunctional, aromatic reactive diluent for epoxy resins	30 – 70	1.70 – 2.40	425 – 575	≤ 13
Araldite® DY-D	Diglycidylether of butanediol	15 – 25	8.00 – 8.50	118 – 125	≤ 2
Araldite® DY-E	Monoglycidylether of C12 – C14 alcohol	4 – 12	3.18 – 3.64	275 – 315	≤ 2
Araldite® DY-F	Diglycidylether of polyoxypropylene glycol	60 – 90	1.95 – 2.35	425 – 513	≤ 3
Araldite® DY-G	Monoglycidylether of C13 – C15 alcohol	4 – 12	3.10 – 3.60	278 – 323	≤ 2
Araldite® DY-H-1	Diglycidylether of 1.6-hexanediol	21 – 31	6.25 – 7.00	143 – 155	≤ 2
Araldite® DY-K	Monoglycidylether of cresol	6 – 12	5.30 – 5.70	175 – 189	≤ 2
Araldite® DY-L	Triglycidylether of polyoxypropylene glycol	160 – 240	1.25 – 1.65	556 – 714	≤ 5
Araldite® DY-P	Monoglycidylether of p-tert. buthylphenol	20 – 28	4.10 – 4.50	222 – 244	≤ 3
Araldite® DY-S	Polyether based on glycerol	1000 – 1400	5.60 – 6.20	160 – 180	≤ 4
Araldite® DY-T	Triglycidylether of trimethyolpropane	100 – 300	7.80 – 8.20	122 – 128	≤ 3
Araldite® DY 3601	Diglycidylether of polyoxypropylene glycol	42 – 52	2.47 – 2.60	385 – 405	≤ 3

[1] Measured at 52°C

Huntsman Advanced Materials

We are a leading global supplier of synthetic and formulated polymer systems for customers requiring high-performance materials which outperform the properties, functionality and durability of traditional materials. Over 2 300 associates at 13 locations worldwide work to fulfill this promise day by day.

More than 3 000 companies around the world use Huntsman Advanced Materials technologies in key markets such as adhesives and inks, aerospace, automotive, coatings, construction, electronics, medical, marine, power transmission and distribution, sports equipment and wind power generation.

Markets

Huntsman Advanced Materials produces and develops knowledge-based specialty components for high-end-performance industrial products. Its unique portfolio appeals to formulators, chemists and scientists working in challenging markets who want to be at the forefront of innovation and product development.

Global presence – 13 manufacturing sites

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