



EPOXY

NORTH AMERICA EPOXY CURING AGENTS



A ROBUST TOOLBOX TO MEET DIVERSE FORMULATION AND END-USE REQUIREMENTS

With a heritage built on more than 60 continuous years in the industry, Olin is the reliable leader in innovative epoxy product and technology solutions. Olin offers a robust portfolio of epoxy products, including a diverse range of curing agent chemistries and individual grades, to help meet specific formulating and application requirements. To meet increased demand for environmentally responsible formulations, our portfolio also includes low-emission and waterborne curing agents.

Olin leadership in epoxy technology is demonstrated by innovative technology, high quality products and attention to customer service. In addition to providing one of the broadest epoxy offerings today, our epoxy innovation pipeline is already creating the solutions you'll require for your needs tomorrow.

Beyond technology development, we are also a source of technical support to help you apply our solutions effectively to achieve desired results. Our comprehensive service model gives you access to local know-how, support and world-class technical resources. Our commitment to the epoxy industry includes adhering to the highest standards for safety in the manufacture, storage, transport, use and disposal of our products.

Talk to your Olin representative to learn more about how Olin can provide the products and support you need to strengthen system differentiation and your competitive position in the marketplace.



Epoxy Curing Agents

Product	AHEW (g/eq)	Viscosity @25 °C (mPa·s)	Gel Time (minutes) with D.E.R.™ 331™ Total Mass 100g	Description
Aliphatic Amine Curing Agents				
D.E.H.™ 20	21	4-8	25	Diethylenetriamine (DETA). General purpose, room temperature, low viscosity curing agent for liquid epoxy resins with good chemical resistance.
D.E.H. 24	24-28	19.5-22.5	25	Triethylenetetramine (TETA). General purpose, room temperature curing agent for liquid epoxy resins with lower vapor pressure than DETA.
D.E.H. 26	27	50-60	27	Tetraethylenepentamine (TEPA). General purpose, room temperature curing agent for liquid epoxy resins with lower vapor pressure than TETA.
D.E.H. 29	29	200-300	24	Complex mixture of linear, branched, and cyclic ethylene amines that offers higher flexibility and peel strength in applications where color is not a limitation.
D.E.H. 30	29	~22	24	Curing agent that offers a short pot-life and cures in minutes with standard unmodified liquid epoxy resins.
D.E.H. 34	34	16	22	Aliphatic amine blend that gives rapid set time and high strength. Applications include fill and patching compounds, crack repair, and grouts/mortars that can tolerate high color.
D.E.H. 39	43	10-15	19	Aminoethylpiperazine (AEP). Fast curing amine hardener.
Modified Aliphatic Amines				
D.E.H.™ 52	42-47	5,000-7,500	18	DETA adduct with less tendency to blush than straight ethylene amines.
D.E.H. 55	42	1,000-1,700	11	Medium viscosity, accelerated curing agent that has excellent strength.
D.E.H. 58	28-32	85-130	15	Room-temperature, low viscosity curing agent that is extremely reactive with liquid epoxy resins.
D.E.H. 502	44	2,500-4,000	14	Viscous, low temperature curing agent with good solvent and chemical resistance.
D.E.H. 505	95	3,000-4,000	6	Very fast curing agent that provides rapid development of properties. Accelerator for other amine curing agents.
D.E.H. 508	34	100-300	12	Low viscosity curing agent with good heat and chemical resistance as well as high strength.
D.E.H. 5103	45	2200-5500 (cSt @ 40 °C)	15	Light color amine adduct with good chemical and alcohol resistance.
D.E.H. 512	86	150-350	9	Fast low viscosity curing agent with good flexibility and blush resistance.
D.E.H. 517	31	50-150	35	Low viscosity aliphatic amine adduct with high strength and modulus and provides good heat and chemical resistance. It has wide variety of applications in adhesives, trowelable flooring, mortars, grouts and patching compounds.
D.E.H. 584	86	30-60	150	Light color, moisture-insensitive curing agent with good color stability and very long pot life for low blush, impact-resistant coatings.
D.E.H. 585	91	150-250	77	Light color, moisture-insensitive curing agent with good color stability and long pot life for low blush applications. Suggested uses on table and bar tops to provide a clear, hard, and durable coating.
D.E.H. 598B	75	50-200	16	Rapid-set, low temperature curing agent with good water spot and chemical resistance for high gloss, blush-free, high strength coatings.
D.E.H. 599	224	3,500-4,500	19	Used for low modulus, highly flexible epoxy membranes and underlayments.

Epoxy Curing Agents (Continued)

Product	AHEW (g/eq)	Viscosity @25 °C (mPa·s)	Gel Time (minutes) with D.E.R.™ 331™ Total Mass 100g	Description
Modified Cycloaliphatic Epoxy Amine Curing Agents				
D.E.H.™ 4042	100	100-200	60	Low viscosity, excellent color stability epoxy curing agent that provides a high gloss finish especially for flooring. Excellent resistance to acids, solvents, and early water spotting. Long working life.
D.E.H. 4044	115	600-900	25	Curing agent suitable for fast return to service flooring system with good resistance to acids, solvents, and early water spotting.
D.E.H. 444	93	160-220	56-58	Longer gel time curing agent with good UV stability.
D.E.H. 445	105	370-570	35	Curing agent with good UV stability and good early water spot resistance.
D.E.H. 487	93	170-270	41	Low viscosity curing agent with excellent early water spot resistance and good chemical resistance. Especially useful in highly stressed industrial floorings.
D.E.H. 488	93	280-380	25	Faster return to service than D.E.H. 487.
D.E.H. 530	112	300-400	43	Low viscosity curing agent for high gloss, blush-free products with good mechanical, chemical and water spot resistance. Provides good balance of working time and return to service.
D.E.H. 530 E32	112	400-600	46	Low viscosity curing agent for applications requiring good color stability and resistance to blushing and water spotting.
D.E.H. 534	120	500-1,000	18	Rapid set, low temperature curing agent offering good corrosion protection and water spot resistance.
D.E.H. 536	116	750-1,250	14	Rapid set, low temperature curing agent for applications requiring high gloss.
D.E.H. 538	108	250-500	33	Low viscosity curing agent with good color stability.
D.E.H. 546	95	200-400	25	Curing agent suitable for applications requiring rapid set and high modulus.
D.E.H. 554	86	60-80	38	Low viscosity curing agent for applications requiring self-leveling. Provides good chemical, blush and water spot resistance.
D.E.H. 561	85	40-100	17	Low viscosity, low temperature curing agent for blush-free products with good water spot resistance and excellent chemical resistance to acids and solvents.
D.E.H. 570	72	70-160	25	Low viscosity curing agent with good chemical and water resistance.
D.E.H. 580	112	300-400	42	Low viscosity curing agent for applications requiring self-leveling with chemical, blushing and water spot resistance.
D.E.H. 581	95	250-600	9	Very fast, low-temperature curing agent. Provides good water spot resistance and excellent chemical resistance.
D.E.H. 582	102	250-600	22	Low viscosity curing agent for non-blushing products with good impact resistance and high gloss.
D.E.H. 583	97	250-600	37	Low viscosity curing agent for low blush products with light color, good light stability and excellent chemical resistance.
D.E.H. 586	95	30-60	45	Low viscosity curing agent for low blushing products with good water spot resistance, good chemical resistance, high gloss and high strength.
D.E.H. 589	83	50-100	20-25	A low blush curing agent with good water spot resistance and excellent chemical resistance. Provides an optimum balance between working time and return to service. Designed for premium industrial flooring.
D.E.H. 595	75	1,000-1,500	16	Very fast ambient and low temperature curing agent for non-blushing products with good water spot resistance, excellent chemical resistance, high gloss and high strength.
D.E.H. 623	46	150-250	30	Designed for high temperature service application with potential glass transition temperature of 150 °C.

Epoxy Curing Agents (Continued)

Product	AHEW as Supplied (g/eq)	Viscosity @25 °C (mPa·s)	Gel Time (minutes) with D.E.R.™ 331™ Total Mass 100g	Description
Aromatic Amine				
D.E.H.™ 650	46	365	51 (at 80 °C with D.E.R.™ 383)	Aromatic amine suitable for curing liquid epoxy resins at elevated temperatures. Able to achieve glass transition temperature of 196 °C.
Modified Polyamidoamine Curing Agents				
D.E.H.™ 545	115	400-650	39	Low viscosity modified polyamidoamine curing agent offering excellent adhesion onto highly humid or wet substrates. Good corrosion protection and fast return to service.
Hardeners for Concentrated Sulfuric Acid Resistance				
D.E.H.™ 590	83	1,600-1,800	38 (with D.E.R.™ 354)	Excellent resistance to sulfuric acid (50% to 98%). Epoxy novolac resins (D.E.R. 354, D.E.N. 425 or D.E.N. 431) need to be used for 98% sulfuric acid resistance application. Good chemical resistance to concentrated hydrochloric acid.
D.E.H. 591	65	60-80	33 (with D.E.R. 354)	Excellent acid resistance properties similar to D.E.H. 590 but with lower viscosity.
Low Temperature Curing Agents				
D.E.H.™ 611	91	1,500-4,000	6	Medium viscosity modified aliphatic amine curing agent with very fast set time and good low temperature cure. May be used as accelerator for other amine based curing agents.
D.E.H. 613	90	900-1,300	10	Shorter gel time version of D.E.H. 614 curing agent.
D.E.H. 614	85	450-750	15	Mannich base curing agent curing down to about 0 °C. High water and chemical resistance. Manufactured without the use of phenol.
D.E.H. 615	75	400-600	15	Low viscosity version of D.E.H. 614 curing agent. Over-coatable after 4 hours (industrial coatings).
D.E.H. 622	60	490-690	6	Modified amine curing agent with extreme high reactivity. With ability to cure down to -5 °C. Manufactured without the use of benzyl alcohol or alkyl phenol.
D.E.H. 630	73	700-900	14 (with D.E.R.™ 3531)	Highly reactive (non-Mannich base) curing agent with an improved EH&S profile, better chemical resistance and UV stability over traditional Mannich base curing agents. Manufactured without the use of benzyl alcohol or alkyl phenol.
Low Emission Curing Agents				
D.E.H.™ 2720	190	3,200 - 5,200	10	Fast cure down to 5 °C. Manufactured without use of benzyl alcohol or alkylphenols. Excellent adhesion and flexibility. Useful for underlayments and membranes.
D.E.H. 4909	83	180-280	41	Manufactured without the use of benzyl alcohol, nonyl phenol, bisphenol A and any inert volatile compounds. Useful for low-emission flooring systems where moisture resistance is required. Excellent wetting, long gel time and quick tack-free time.
D.E.H. 4912	84	280-480	34	Manufactured without the use of alkyl phenol or benzyl alcohol. Shows low exothermic reaction.

Waterborne Epoxies

Olin Epoxy is pushing waterborne technology to new levels. The solvent-free nature of these products can help formulators meet stringent VOC regulations, including ultra-low VOC formulations, in the development of high-performance coatings.

Our waterborne epoxies have been shown to perform as well as solvent-borne technologies, giving formulators the opportunity to gain solvent-level performance while also meeting environmental and performance goals.

Waterborne Epoxy Benefits

- Solvent-free formulation capability
- Easy mixing with other waterborne components
- Manufactured without the use of APEO¹ surfactants
- Low odor
- Shear stable
- Easy water clean-up
- High gloss
- Early hardness
- Good abrasion
- Chemical resistance
- Freeze stable curing agents

¹Alkyl phenol ethoxylates

Product	AHEW as Supplied (g/eq)	Viscosity @25 °C (mPa·s)	Solids (wt%)	Description
Aliphatic Amine Curing Agents				
D.E.H.™ 800	300	5,000-10,000	50	Aqueous polyamine adduct solution with emulsification capability. Offers visible end of gel time, excellent chemical, corrosion resistance and excellent gloss.
D.E.H. 802	300	3,000-7,000	50	Aqueous polyamine adduct solution with emulsification capability. Offers optimized rheology in roller and brush applications.
D.E.H. 804	175	5,000-11,000	70	Aqueous polyamine adduct solution with emulsification capability. Offers visible end of pot life, fast drying, low odor. Suitable for thick layer self-leveling applications.
D.E.H. 805	210	10,000-18,500	65	Aqueous polyamine adduct solution with emulsification capability. Offers visible end of gel time, low odor, fast drying and thorough hardening.
D.E.H. 810	300	2,000-4,000	50	Aqueous polyamine adduct solution with emulsification capability. Offers low viscosity, long gel time and excellent coatings properties.

Solid Phenolic Curing Agents for Epoxy Powder Coatings

Product	HEW (g/eq)	Softening Point (°C)	Melt Viscosity (mPa·s @150 °C)	Description
D.E.H™ 81	240-270	83-90	NA	Phenolic curing agent of intermediate reactivity containing curing catalyst as well as a polyacrylate flow modifier. The intermediate reactivity makes D.E.H. 81 particularly suitable as a starting base for product development.
D.E.H. 82	235-265	83-90	NA	High reactivity phenolic curing agent containing curing catalyst as well as a polyacrylate flow modifier. Can be formulated in low temperature applications in combination with D.E.R.™ 6615 solid epoxy resin.
D.E.H. 84	240-270	83-90	290-470	Curing agent based on an unmodified solid reaction product of liquid epoxy resin and bisphenol A containing about 2% of a curing accelerator.
D.E.H. 85	250-280	83-90	290-470	Curing agent based on an unmodified solid reaction product of liquid epoxy resin and bisphenol A.
D.E.H. 87	370-400	96-102	1,200-1,600	Higher molecular weight curing agent based on an unmodified solid reaction product of liquid epoxy resin and bisphenol A. Designed primarily for functional powder coating applications requiring a high degree of flexibility and a good storage stability.
D.E.H. 90	240-270	76-84	100-300	Solid reaction product of liquid epoxy resin and polyphenols containing polyacrylate flow modifier and 2% curing accelerator. Designed for powder coating applications that require fast cure capability and low curing temperature, combined with superior adhesion property to metal substrates. Fully compatible with other D.E.H. 80 series epoxy curing agents.
Product	EEW	Solids (wt%)	Viscosity (cSt)	Description

Specialty Epoxy Curing Agents for Laminate Applications

XZ 92749.00	NA	45-55	200-1,000	Phosphorous containing phenolic hardener for halogen-free electrical laminate applications recommended for use with specialty epoxy resins XZ 92748.00 or XZ 92757.00.
-------------	----	-------	-----------	--



Global Contact Information

USA: +1 844 238 3445

Argentina: +54 1150789792

Brazil: +55 6135500717

Canada: +1 877 304 4442

China: +86 4008859485

France: +33 176361145

Germany: +49 41417693000

Hong Kong: +852 58081886

Italy: +39 0694805761

Japan: +81 345406770

Mexico: +52 5553518395

Russia: +7 4996092327

Singapore: +65 31632006

South Korea: +82 260221296

United Kingdom: +44 8000869047

Info@olinbc.com

www.OlinEpoxy.com

Toll free service not available in all countries



Notice: No freedom from any patent or other intellectual property rights owned by Olin or others is to be inferred. Olin assumes no obligation or liability for the information in this document. The information provided herein is presented in good faith and is based on the best of Olin's knowledge, information, and belief. Since use conditions at non-Olin facilities are beyond Olin's control and government requirements may differ from one location to another and may change with time, it is solely the Buyer's responsibility to determine whether Olin's products are appropriate for the Buyer's use, and to assure the Buyer's workplace, use, and disposal practices are in compliance with applicable government requirements. Consequently, Olin assumes no obligation or liability for use of these materials and makes no warranty, express or implied. The user of the information provided is solely responsible for compliance with any applicable government requirements. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.