

Your Competent Partner for Epoxy and Polyurea Applications

BASF develops, produces, and markets a comprehensive product portfolio of amines suitable for epoxy and polyurea applications.

We have strong global manufacturing footprint in U.S., Germany and China. Commercial products are available for delivery to customers with short lead time.

Our products are featured in many epoxy formulations. They perform as highly efficient curing agents for composites, coatings, sealants, etc. They are also used in polyurea applications for protective coatings in many industries such as automotive, infrastructure, and construction.

BASF Baxxodur® products offer the following advantages:

- Comprehensive portfolio
- Flexibility in formulation with various amine systems
- Provide a range of characteristics for various needs such as:
 - Reactivity
 - Hardness
 - Weatherability
 - Chemical resistance
 - And many more to meet formulators and end user requirements

Strong global production network of the Baxxodur® products from BASF



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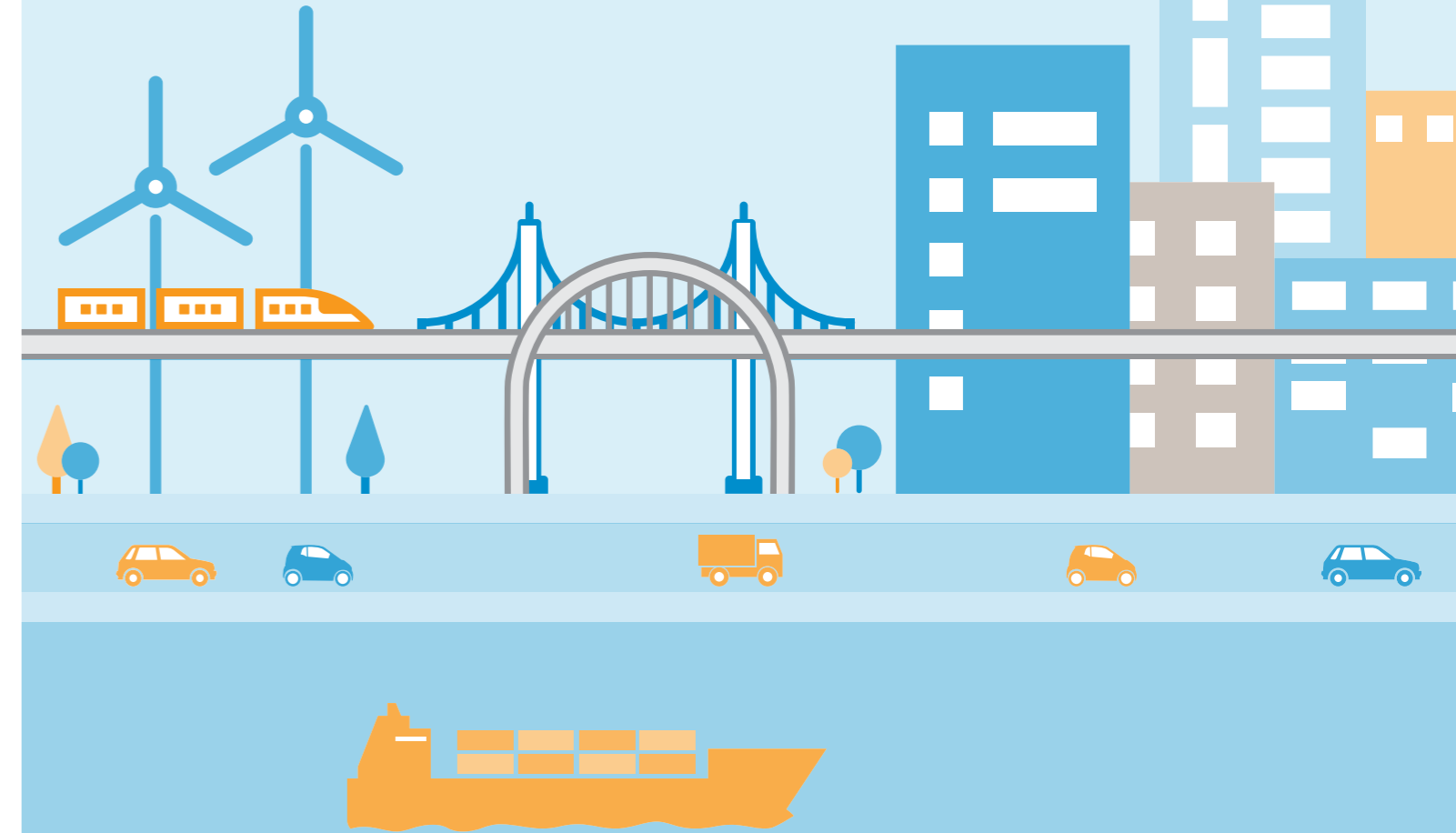
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Intermediates

Baxxodur®

Amines for Epoxy and Polyurea Applications



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We create chemistry

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Amines for Epoxy and Polyurea Applications



BASF Product	Chemical Name	Abbreviation	CAS Number	Chemical Structure	Physical Properties													Applications									Benefits									
					Curing Agent					Amine/Resin	Cured Resin								Composites	Flooring	Construction	Coatings	Adhesives	Structural Adhesives	Casting & Encapsulation	Polyurea		Composite Lamination	Laminates	Grout	Epoxy Toughener					
					Amine Hydrogen Eq AHEW (g/eq)	Viscosity 23°C, (mPa·s) ^a	Density (g/cm ³)	Melting Point (°C)	Boiling Point (°C)		Gel Time of Blend (min) ^b	T _g (°C)	Tensile Strength (MPa) ^c	Tensile Elongation (%) ^c	Flexural Strength (MPa) ^d	Flexural Modulus, (MPa) ^d	Impact Strength (J/m) ^e	Lap Shear Strength (MPa) ^f																		
Aliphatic Amines																																				
Amix 1000	Mixture of Ethyleneamines	-	68910-05-4		-	1,750	1.034	-30	236-310	-	-	-	-	-	-	-	-	-	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Suitable for primary coating.
Baxxodur® EC 110	Dipropylene triamine	DPTA	56-18-8	<chem>NCNCCNCCNCCN</chem>	26	8-9	0.93	-16.0	239	40-60	120-123	43-50	2.6-3.2	81-101	2400-3080	37-46	9-14	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Fast curing; High hardness and temperature resistance; Low color.	
DETA	Diethylenetriamine	DETA	111-40-0	<chem>NCNCCNCCN</chem>	21	5	0.96	-39	206	64	109	59-74	1.9-3.2	117-133	2880-3360	42-47	7-8	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Fast curing; Ambient temperature activity.		
N4 Amine	N,N'-Bis-(3-Aminopropyl) ethylenediamine	-	10563-26-5	<chem>NCNCCNCCNCCNCCN</chem>	29	28	0.95	-1.5	>169	38	60	74-76	3.4-3.5	71-126	3100-3460	51-57	9-11	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Cross-linking agent.		
Cycloaliphatic Amines																																				
Baxxodur® EC 210	Methyl-diaminocyclohexane	MCDA	13897-55-7 13897-56-8	<chem>C1CCN(C1)N</chem>	31	7	0.94	-92	210	190	110	36-51	1.3-1.9	40-42	2200-3200	122-154	9-13	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Long pot life; Very low viscosity; Low amine hydrogen equivalent weight; Moderate curing speed.	
Baxxodur® EC 201	Isophorone diamine	IPDA	2855-13-2	<chem>CC1(C)CC(C)CC(C1)N</chem>	43	19-20	0.92	10.0	247	130-190	128-132	70-86	3.2-4.1	117-125	2790-2940	44-46	16-18	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	High mechanical strength and temperature resistance; Excellent moisture and chemical resistance; Low color and good color stability.		
Baxxodur® EC 330	4,4'-methylenebis (cyclohexylamine)	DC	1761-71-3	<chem>NC1CCCCC1CC1CCCCC1N</chem>	55	19-20	0.93	33.5-44.0	326	210-260	135-136 ^g	42-60	2.2-3.6	91-98	2310-2410	38-40	14-18	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	High temperature resistance; Good moisture and chemical resistance; Good adhesion on metal substrates; Good color stability; Long pot life.		
Baxxodur® EC 331	3,3'-Dimethyl-4,4'-diaminodicyclohexylmethane	DMDC	6864-37-5	<chem>CC1(C)CCN(C1)CC2(C)CCN(C2)C</chem>	61	110	0.95	-7.0- -1.0	347	320-480	140-145	52-68	2.0-3.7	88-100	2480-2660	45-55	20-22	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Excellent chemical, moisture and high temperature resistance; Good adhesion on metal substrates; Good color stability.		
Baxxodur® PC 136	Modified IPDA	MIPDA	93940-97-7	<chem>CC1(C)CCN(C1)C(C)C</chem>	136	913	0.99	<-20.0	>200	-	-	-	-	-	-	-	-	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Excellent UV and color stability; Faster film development; Easy to formulate; Slower gel time; Good film stability at elevated temperatures.		
Etheramines																																				
Baxxodur® EC 130	4,7,10-Trioxatridecane-1,13-diamine	TTD	4246-51-9	<chem>NCNCCOCCOCCOCCOCCN</chem>	56	13-14	1.01	-32.0	146-148	80-120	68-72	49-51	4.7-6.0	72-77	2300-2500	97-102	17-30	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Excellent thermal shock resistance, adhesion, and toughness; Good flexibility; Low color.	
Baxxodur® EC 280	4,9-Dioxadodecane-1,12-diamine	DODA	7300-34-7	<chem>NCNCCOCCOCCOCCOCCN</chem>	52	10-11	0.96	4.5	298	100-140	76-77	49-52	6.8-8.7	70-82	2110-2510	75-79	21-25	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Excellent thermal shock resistance; Good adhesion and toughness; Very good flexibility; Low color.	
Baxxodur® EC 301	Polyetheramine D 230	D 230	9046-10-0	<chem>NCN(C)CCOC(C)CCN</chem>	61	10	0.95	-88.0	>200	>550	67-78	65-67	5.8-7.0	95-98	2690-2820	74-81	23-25	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Excellent adhesion and toughness; Good flexibility and thermal shock resistance; Low color; Long pot life.	
Baxxodur® EC 302	Polyetheramine D 400	D 400	9046-10-0	<chem>NCN(C)CCOC(C)CCOC(C)CCN</chem>	111	25	0.97	<-40	>200	>600	43-46	49-52	2.7-3.7	72-75	2900-2910	63-77	20-24	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Good adhesion, toughness, and thermal shock resistance; High peel strength; Long pot life.	
Baxxodur® EC 303	Polyetheramine D 2000	D 2000	9046-10-0	<chem>NCN(C)CCOC(C)CCOC(C)CCOC(C)CCN</chem>	501	273	1.00	-29.0	>250	>600	-	0.4-0.6	13.7-24.4	-	-	-	-	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Excellent flexibility; High peel strength; Light color; Very long pot life.		
Baxxodur® EC 310	Polyetheramine T 403	T 403	39423-51-3	<chem>CC(C)C(OCCN)OCCN</chem>	81	102	0.99	<-20.0	>250	>500	84-86	61-63	5.7-6.4	90-93	2640-2760	55-60	23-24	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Excellent adhesion; Good flexibility, toughness, and thermal shock resistance; Low color; Long pot life.		
Baxxodur® EC 311	Polyetheramine T 5000	T 5000	64852-22-8	<chem>CC(C)C(OCCN)OCCN</chem>	967	870	1.00	-50.0	>200	>600	-	-	-	-	-	-	-	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	Excellent flexibility; High peel strength; Low color; Very long pot life.	

Notes: ^a Falling ball viscometer; ^b 100 g at 23°C ASTM D 2471; ^c At break, crosshead speed 5 mm/min.; ^d At yield, crosshead speed 2.5 mm/min.; ^e Izod, notch; ^f Steel/Steel (overlap is 6 mm)
Please note that the physical properties data for cured system may not be consistent throughout the above table since not all the curatives were tested under the same condition. Cured for 2 hours at 80°C plus 3 hours at 125°C (Data range for DGEBA resins from different suppliers, EEW ranges from 182-188)