

Technical Data Sheet

CeTePox® AM 3379 A/B/B2

Characteristics Epoxy system for infusion technologies with long pot-life.

Properties and Fields of Application CeTePox® AM 3379 A/B/B2 is a crystallization stable epoxy system designed for versatile vacuum infusion applications. Due to its very low initial viscosity, this epoxy system is suitable especially for thick laminates with low permeability e.g. UD-carbon fiber reinforced laminates. CeTePox® AM 3379 A/B/B2 fulfills technical requirements DNV.

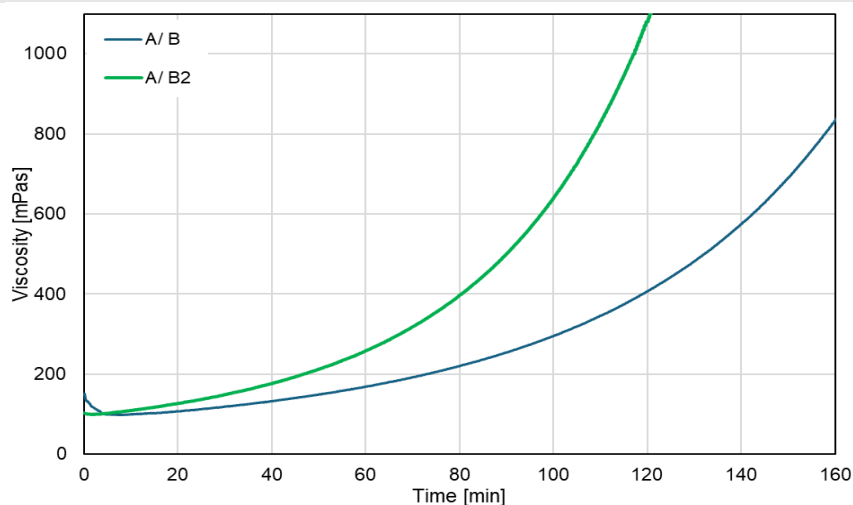
Two hardeners with different reactivity cover different application needs.

CeTePox AM 3379 A/ B: longest pot life and low exothermic heat for infusion of very large components

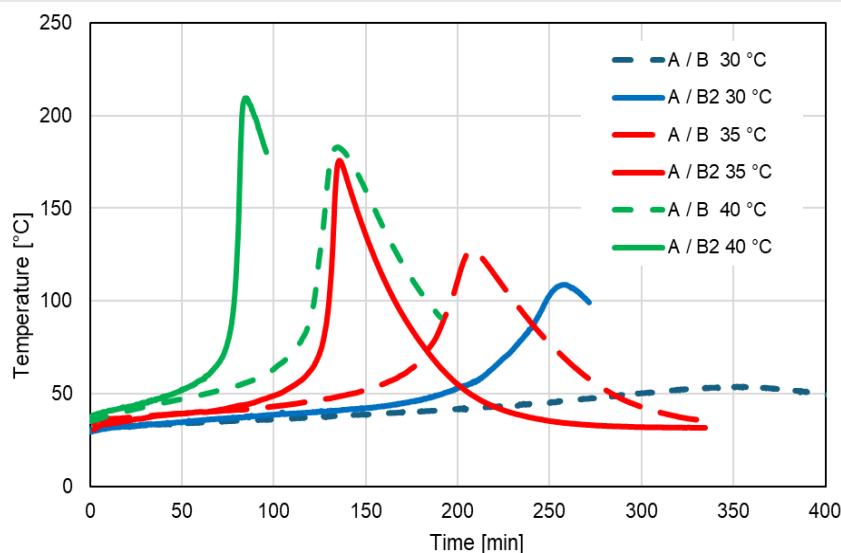
CeTePox AM 3379 A/ B2: shorter pot life for faster processability and shorter cure cycles

	Property	Unit	Comp A	Comp B	Comp B2
Typical Data	Viscosity @ 25°C	mPas	1000 – 1450	5 – 20	5 -20
	EEW	g/equiv.	182 – 192	–	
	Amine equivalent	g/equiv.	–	50	47
	Density @ 23°C	g/cm³	1.12 – 1.14	0.93 – 0.95	0.93 – 0.95
Mixing Ratio	Parts by Weight	pbw	100	25 ± 2	25 ± 2
System Properties	Viscosity of Mixture @ 25°C, $\dot{\gamma}$ = 100 1/s DIN EN ISO 3219	mPas		220 – 300	250 – 350
	Density of Mixture @ 23°C	g/cm³		1,09-1,11	1,08-1,10
	Pot life 100g @ 23°C CTP-AM-TS 05-01	h		9 – 10	6 – 7
	Pot life 100g CTP-AM-TS 04-01 @ 30°C	h		6 – 7	4 – 5
	@ 35 °C	min		200 - 230	120 – 140
	@ 40°C	min		115 – 135	70 – 90
	Gel-Time (GELNORM®) @ 60°C DIN 16945	min		108 – 116	75 - 85

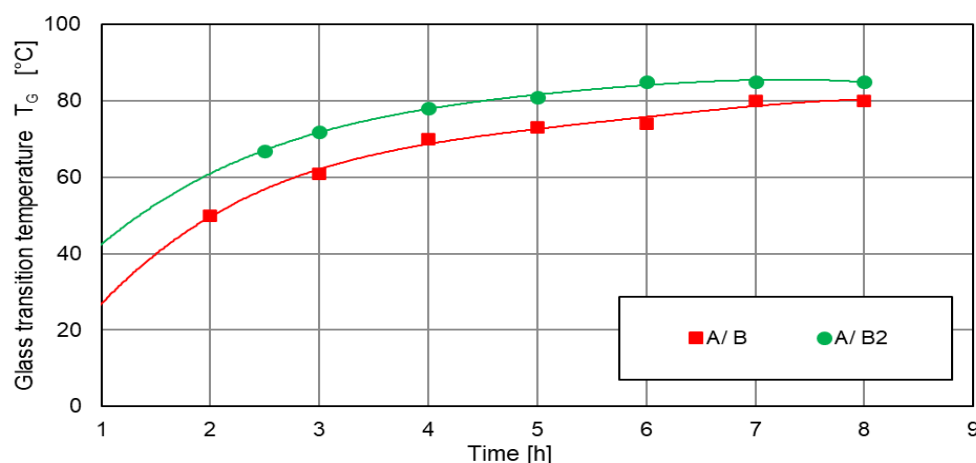
System viscosity increase @ 40 °C



Comparison Pot-Life, 100 g @ 30 °C, 35 °C, 40 °C



T_G-Development @ 70 °C – DSC measurement of 2 mm, cured specimens (rate: 10 K/min, T_G Midpoint)



	Property	Unit	Comp B	Comp B2
Properties of cured resin	Curing condition: 1h @ RT + 1h @ 60°C + 8h @ 80°C			
	Flexural strength	MPa	118	120
	E-Modulus (flexural)	MPa	2910	3036
	Tensile strength	MPa	74	73
	E-Modulus (tensile)	MPa	3050	2960
	Elongation at break (tensile)	%	4.7	5.3
	T _G (DSC mid point)	°C	83	86
Processing	The ideal processing parameters strongly depend on the part dimensions and external circumstances and must be clarified in pretests. This is general advice for typical components produced by infusion process. Final mechanical properties depend on the curing conditions. For optimal performance the mixing ratio must be observed carefully. The material and processing temperatures should be between 20 and 35 °C. The higher temperatures lead to shorter pot life but lower viscosity. Preform should be pre-heated for faster Infusion, upper side should have at least 30 °C. After complete infusion the temperature can be increased slowly to 80 °C (stepwise heating is recommended). After surface temperature has passed the exotherm peak the laminate can be covered and fully cured.			
	Do not mix large quantities at elevated temperatures. Due to exothermic reaction a fast heat up of the mixture is possible. Temperatures of more than 200°C in the mixing container are possible, which may cause smoke-intensive burning of the mass. It is recommended to divide remains into several smaller containers.			
Shelf Life & Storage	Store this material in a clean, dry environment in its tightly closed original container. These products are not considered especially temperature or moisture sensitive but should be kept from moisture contamination during storage. The resin should be stored at a temperature between 18 and 35 °C to minimize crystallization tendency. The hardener should be stored at a temperature between 15 and 25 °C. If the recommended storage conditions are observed the originally sealed products will have a minimum shelf-life of 12 months from the date of shipment.			
Remarks with Regard to Occupational Safety	Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheet.			
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