

STANDARD CATALYSTS

CATALYST	9	14	15
Type	Modified aliphatic amine	Anhydride	Polyamide
Viscosity	80 – 100 mPa.s	Powder	20 – 40 Pa.s
Colour	Amber	White	Black
Density (g/cm ³)	0,99 - 1,01	0,77 – 0,79	0,95 - 0,98
Amount of Catalyst used in relation to CATALYST 9 (in x CATALYST 9)	1,00	2,5	7,0
Pot life (100 g at 25°C)	45 min	24 h	2 h
Shelf life at RT	1 year in unopened containers	1 year in unopened containers	1 year in unopened containers
Cure schedule	16 to 24 h at RT or 2 to 4 h at 65°C	3 h at 150°C + 3 to 16 h at 180°C	16 to 24 h at RT or 2 h at 80°C
Service Temperature (°C) - Continuous - Intermittent	120 150	230 260	90 120
Advantages	Chemical resistant Physical Strength RT cure Low viscosity Low cost Good for General Purpose Applications	High temperature performance Chemical resistance Pot life Increases viscosity of epoxy systems	RT cure Adjustable flexibility Pot life Low toxicity Wide mixing ratio Low cost
Disadvantages	Brittle (not good for low temperature) Pot life Toxicity	High temperature cure Odour	High viscosity Softens at elevated temperature
Other comments	Good all-round epoxy curative	Keep away from moisture. For lower viscosity use Catalyst 17	Easiest epoxy curative to use. Can mix with epoxy even without sophisticated weighing equipment

STANDARD CATALYSTS (cont)

CATALYST	15 LV	17	23 LV	24 LV
Type	Polyamide	Anhydride	Modified aliphatic amine	Modified aliphatic amine
Viscosity	5 – 15 Pa.s	slurry (at 35°C)	20 – 30 mPa.s	30 – 40 mPa.s
Colour	Black	Blue - grey	Water-white to slight amber	Water white to slight amber
Density (g/cm ³)	0,95 – 0,98	1,3 - 1,5	1,00 - 1,03	1,00 - 1,03
Amount of Catalyst used in relation to CATALYST 9 (in x CATALYST 9)	3,5 – 14,0	2,8	2,10	2,05
Pot life (100 g at 25°C)	2 h	24 h	60 min	30 min
Shelf life at RT	1 year in unopened containers	1 year in unopened containers	1 year in unopened containers	1 year in unopened containers
Cure schedule	16 to 24 h at RT or 2 h at 80°C	3 h at 120°C + 2 h at 150°C + 16 h at 175°C	16 to 24 h at RT or 4 h at 65°C	8 to 16 h at RT or 2 h at 65°C
Service Temperature (°C) - Continuous - Intermittent	65 90	230 260	90 120	90 120
Advantages	RT cure Adjustable flexibility Pot life Low toxicity Wide mixing ratio Low cost	Very good high temperature performance Pot life Lower viscosity alternative to Catalyst 14	Low viscosity Low cost Thermal shock resistance Pot life Tough impact resistance Low colour	Low viscosity Thermal shock resistant Tough impact resistant Low colour
Disadvantages	Softens at elevated temperature	Elevated temperature cure	Longer cure at RT than CATALYST 24 LV	Pot life
Other comments	Easiest epoxy curative to use. Can mix with epoxy even without sophisticated weighing equipment	CATALYST 17 may be solid at RT (Crystallised) When warmed to 65°C, it will liquefy. Cool down to room temperature before use.		Has tendency to semi-thixotrope various epoxy systems

STANDARD CATALYSTS (cont)

CATALYST	27-1	28	30
Type	Modified aromatic amine	Modified aromatic amine	Modified aliphatic amine
Viscosity	250 – 300 mPa.s	250 – 300 mPa.s	70 – 90 mPa.s
Colour	Brown	Brown	Slight amber
Density (g/cm ³)	1,00 – 1,05	1,00 – 1,05	0,92 - 0,96
Amount of Catalyst used in relation to CATALYST 9 (in x CATALYST 9)	1,75	1,75	2,70
Pot life (100 g at 25°C)	2 h	2,5 – 3 h	60 min
Shelf life at RT	1 year in unopened containers	1 year in unopened containers	1 year in unopened containers
Cure schedule	4 h at 120°C	4 h at 120°C	24 h at RT or 4 h at 65°C
Service Temperature (°C) - Continuous - Intermittent	175 200	175 200	90 120
Advantages	Chemical resistance Physical strength Pot life High temperature performance	Chemical resistance Physical strength Pot life High temperature performance	Non-blushing Resilient (more than CATALYST 9) Low viscosity RT cure Low colour
Disadvantages	Elevated temperature cure	Elevated temperature cure	
Other comments	Non-staining alternative for CATALYST 11 ; Cannot be used in combination with the following products : STYCAST 2057 * STYCAST 2651 MM STYCAST 2741 LV STYCAST 3050 STYCAST 2850FT BLUE ABLESTIK 45 LV	Non-staining alternative for CATALYST 11 Can be used with STYCAST 2057 STYCAST 2651 MM STYCAST 2741 LV STYCAST 3050 STYCAST 2850FT BLUE ABLESTIK 45 LV	Excellent epoxy curative if appearance is important

****Do not use Cat 27-1 with Calcium Carbonate filled products, Stycast 2850FT Blue may also react due to the blue pigment, offer the customer Catalyst 28****

Cat 27-1 can be used with Stycast 2651-40-W-1 as it uses a different filler than 2651MM

STANDARD CATALYSTS (cont)

Note:

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