

Cycoloy* Resin CX3222ME

Americas: COMMERCIAL

Cycoloy* resin grade CX3222ME is an extrudable & thermoformable PC/ABS blend with non brominated and non chlorinated flame retardant systems. Key features of low gloss and good impact make it ideal for a wide variety of extrusion & thermoforming applications including large scale housings for medical and hospital equipment.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	660	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	520	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4.4	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	30	%	ASTM D 638
Tensile Modulus, 50 mm/min	29200	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1010	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	27500	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 50 mm/min	65	MPa	ISO 527
Tensile Stress, break, 50 mm/min	50	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.5	%	ISO 527
Tensile Strain, break, 50 mm/min	40	%	ISO 527
Tensile Modulus, 1 mm/min	2620	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	99	MPa	ISO 178
Flexural Modulus, 2 mm/min	2700	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	60	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	622	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	15	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	30	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	107	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	100	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	88	°C	ASTM D 648

¹ Typical values only. Variations within normal tolerances are possible for various colours. All values are measured at least after 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume rate are measured on injection moulded samples. All samples are prepared according to ISO 294.

² Only typical data for material selection purpose. Not to be used for part or tool design.
³ This rating is not intended to reflect hazards presented this or any other material under actual fire conditions.
⁴ Own measurement according to UL.
⁵ Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 www.kedisujiao.com

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TYPICAL PROPERTIES ¹	TYPICAL VALUE	UNIT	STANDARD
THERMAL			
CTE, -40°C to 40°C, flow	6.12E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.59E-05	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/50	106	°C	ISO 306
Vicat Softening Temp, Rate B/120	108	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	98	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	88	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.4 - 0.6	%	SABIC Method
Melt Flow Rate, 260°C/5.0 kgf	11	g/10 min	ASTM D 1238
Density	1.18	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.6	%	ISO 62
Melt Volume Rate, MVR at 265°C/5.0 kg	10	cm ³ /10 min	ISO 1133
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	1.5	mm	UL 94
UL Recognized, 94-5VB Rating (3)	2.3	mm	UL 94

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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Injection Molding		
Drying Temperature	80 - 90	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.04	%
Melt Temperature	245 - 275	°C
Nozzle Temperature	245 - 275	°C
Front - Zone 3 Temperature	245 - 275	°C
Middle - Zone 2 Temperature	220 - 265	°C
Rear - Zone 1 Temperature	220 - 255	°C
Mold Temperature	60 - 80	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	40 - 70	rpm
Shot to Cylinder Size	30 - 80	%
Vent Depth	0.038 - 0.076	mm
Extrusion Blow Molding		
Drying Temperature	80 - 90	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0 - 0.02	%
Melt Temperature (Parison)	225 - 250	°C
Barrel - Zone 1 Temperature	205 - 230	°C
Barrel - Zone 2 Temperature	215 - 245	°C
Barrel - Zone 3 Temperature	215 - 245	°C
Barrel - Zone 4 Temperature	220 - 250	°C
Adapter - Zone 5 Temperature	225 - 250	°C
Head - Zone 6 - Top Temperature	225 - 250	°C
Head - Zone 7 - Bottom Temperature	225 - 250	°C
Mold Temperature	65 - 90	°C

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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
Extrusion Blow Molding		
Die Temperature	240 - 250	°C

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