

# Cycoloy\* Resin CY201

## Europe-Africa-Middle East: LIMITED USE

Cycoloy\* CY201 is a PC+ABS Flame Retardant grade for injection moulding applications. The product is designed to utilize selected recycle materials from our plants and is generally modified with virgin resins to yield the typical physical product properties listed below.

#### **Property**

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yield, 50 mm/min	60	MPa	ISO 527
Tensile Stress, break, 50 mm/min	45	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3	%	ISO 527
Tensile Modulus, 1 mm/min	2500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	85	MPa	ISO 178
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
ІМРАСТ	Value	Unit	Standard
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	4	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	6	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	4	kJ/m²	ISO 179/1eA
THERMAL	Value	Unit	Standard
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/120	95	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	90	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	80	°C	ISO 75/Ae
PHYSICAL	Value	Unit	Standard
Density	1.19	g/cm³	ISO 1183
Melt Volume Rate, MVR at 260°C/2.16 kg	20	cm <sup>3</sup> /10 min	ISO 1133
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Recognized, 94V-1 Flame Class Rating (3)	1.5	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating (3)	2	mm	UL 94
Glow Wire Flammability Index 960°C, passes at	3.2	mm	IEC 60695-2-12

### Processing

Parameter			
Injection Molding	Value	Unit	
Drying Temperature	75 - 80	°C	
Drying Time	2 - 4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	230 - 270	°C	
Nozzle Temperature	220 - 260	°C	
Front - Zone 3 Temperature	230 - 270	°C	
Middle - Zone 2 Temperature	220 - 260	°C	
Rear - Zone 1 Temperature	200 - 230	°C	
Hopper Temperature	60 - 80	°C	
Mold Temperature	50 - 70	°C	

Source GMD, last updated:2000/07/20

#### THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

#### PLEASE CHECK WITH YOUR (LOCAL SALES OFFICE) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(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.

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