

## Cycolac® Resin X15

### Americas: COMMERCIAL

Automotive. Very high heat resistance with high impact. UL94 HB rated. High gloss.

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	UNIT	STANDARD
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	460	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Modulus, 5 mm/min	22400	kgf/cm <sup>2</sup>	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	790	kgf/cm <sup>2</sup>	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	23900	kgf/cm <sup>2</sup>	ASTM D 790
Hardness, Rockwell R	108	-	ASTM D 785
<b>IMPACT</b>			
Izod Impact, notched, 23°C	27	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -40°C	8	cm-kgf/cm	ASTM D 256
<b>THERMAL</b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	107	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	94	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	110	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	100	°C	ASTM D 648
Relative Temp Index, Elec	60	°C	UL 746B
Relative Temp Index, Mech w/impact	60	°C	UL 746B
Relative Temp Index, Mech w/o impact	60	°C	UL 746B
<b>PHYSICAL</b>			
Specific Gravity	1.05	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.8	%	SABIC Method
Melt Flow Rate, 230°C/3.8 kgf	1	g/10 min	ASTM D 1238
Melt Viscosity, 260°C, 1000 sec-1	2550	poise	ASTM D 3825
<b>ELECTRICAL</b>			
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	4	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A

1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured at least after 48 hours storage at 230°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 by 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.

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TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	UNIT	STANDARD
<b>ELECTRICAL</b>			
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
<b>FLAME CHARACTERISTICS</b>			
UL Recognized, 94HB Flame Class Rating (3)	1.47	mm	UL 94

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Dongguan Yi-Ming Plastic Chemical Co., Ltd.

如需要更多物性资料请查阅 [www.kedisujiao.com](http://www.kedisujiao.com)

备注：以上原料物性数据由厂家发布，我公司仅提供参考！数据如有变动，请联系原料生产厂家获知。我公司不承担任何法律责任！

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PROCESSING PARAMETERS	TYPICAL VALUE	UNIT
<b>Injection Molding</b>		
Drying Temperature	95 - 100	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.01	%
Melt Temperature	245 - 275	°C
Nozzle Temperature	245 - 275	°C
Front - Zone 3 Temperature	245 - 255	°C
Middle - Zone 2 Temperature	225 - 240	°C
Rear - Zone 1 Temperature	200 - 210	°C
Mold Temperature	50 - 80	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	30 - 60	rpm
Shot to Cylinder Size	50 - 70	%
Vent Depth	0.038 - 0.051	mm

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