

Cycloley* Resin C2950

Americas: COMMERCIAL

Non-chlorinated and non-brominated flame retardant PC/ABS offering balanced flow and impact plus improved heat resistance intended for various applications.

Property

TYPICAL PROPERTIES ⁽¹⁾

MECHANICAL

Property	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	62	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	40	%	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	102	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	2650	MPa	ASTM D 790
Hardness, Rockwell R	123	-	ASTM D 785

IMPACT

Property	Value	Unit	Standard
Izod Impact, notched, 23°C	534	J/m	ASTM D 256
Izod Impact, notched, -30°C	160	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	61	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	54	J	ASTM D 3763

THERMAL

Property	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	112	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	90	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	104	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	95	°C	ASTM D 648
CTE, -30°C to 30°C, flow	7.2E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	7.2E-05	1/°C	ASTM D 696
Thermal Conductivity	0.2	W/m-°C	ASTM C 177
Relative Temp Index, Elec	85	°C	UL 746B
Relative Temp Index, Mech w/impact	85	°C	UL 746B
Relative Temp Index, Mech w/o impact	85	°C	UL 746B

PHYSICAL

Property	Value	Unit	Standard
Specific Gravity	1.18	-	ASTM D 792
Specific Gravity, color	1.22	-	ASTM D 792
Water Absorption, 24 hours	0.1	%	ASTM D 570
Water Absorption, equilibrium, 23C	0.4	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.4 - 0.6	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm	0.4 - 0.6	%	SABIC Method
Melt Flow Rate, 260°C/2.16 kgf	10	g/10 min	ASTM D 1238

ELECTRICAL

Property	Value	Unit	Standard
Volume Resistivity	1.E+17	Ohm-cm	ASTM D 257
Surface Resistivity	>1.E+16	Ohm	ASTM D 257
Dielectric Strength, in oil, 3.2 mm	19.4	kV/mm	ASTM D 149
Relative Permittivity, 50/60 Hz	3	-	ASTM D 150
Relative Permittivity, 100 Hz	3	-	ASTM D 150

Dissipation Factor, 50/60 Hz	0.005	-	ASTM D 150
Dissipation Factor, 100 Hz	0.0049	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	1	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	1	PLC Code	UL 746A
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Recognized, 94V-0 Flame Class Rating (3)	1.49	mm	UL 94
UL Recognized, 94-5VB Rating (3)	2.48	mm	UL 94
CSA (See File for complete listing)	LS88480	File No.	CSA LISTED
Oxygen Index (LOI)	32	%	ASTM D 2863

Source GMD, last updated:01/05/2000

Processing

Parameter		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 - 275	°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

Source GMD, last updated:01/05/2000

• NOTE: Back Pressure, Screw Speed, Shot to Cylinder Size and Vent Depth are only mentioned as general guidelines. These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR www.cn-plas.com 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.

Disclaimer : THE MATERIALS AND PRODUCTS OF THE BUSINESSES MAKING UP THE SABIC INNOVATIVE PLASTICS COMPANY, ITS SUBSIDIARIES AND AFFILIATES ("SABIC IP"), ARE SOLD SUBJECT TO SABIC IP' S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SABIC IP MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (I) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (II) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SABIC IP MATERIALS, PRODUCTS,

RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SABIC IP' S STANDARD CONDITIONS OF SALE, SABIC IP AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS OR PRODUCTS DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of SABIC IP' s materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating SABIC IP materials or products will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of SABIC IP' s Standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by SABIC IP. No statement contained herein concerning a possible or suggested use of any material, product or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of SABIC Innovative Plastics Company or any of its subsidiaries or affiliates covering such use or design, or as a recommendation for the use of such material, product or design in the infringement of any patent or other intellectual property right

* Cocoloy is a trademark of the SABIC Innovative Plastics Company

© 1997-2008 SABIC Innovative Plastics Company. All rights reserved