

# CYCOLOY™ FR RESINS

CYCOLOY™ flame retardant (FR) resins are amorphous Polycarbonate Acrylonitrile Butadiene Styrene blends or PC blends that offer the excellent processability of ABS materials and the superior mechanical properties and heat resistance of polycarbonate (PC) resins.

STRUCTURAL – LOW WARPAGE		MVR	IZOD IMPACT	VICAT SOFTENING TEMP	UL94 LISTING	
CM6210	Medium viscosity, 3.5GPa, Extrusion.	*12	45	114	5VB@1.5mm	
FLAME RETARDANT – IMPACT NON-BROMINATED, NON-CHLORINATED FR						
C6600	Low viscosity, high flow impact balance, hydrolytic stable	16	15	107	V0@1.5mm 5VB@2mm	
CY6110	Low viscosity, higher flow, better hydrolytic stable	23	25	106	V01.5-5VB/2.5	
CY6310	Low viscosity, high heat, better impact-flow balance, hydrolytic stable	19	50	111	V0@1.5-5VA/2.9	
CY6414	Medium viscosity, high heat, BPT125C pass	*13	50	134	V0@1.2-5VB/2.5	
CE3510	Medium viscosity, extrusion, EN45545 R22-HL 3 grey certification	*8	664	116	V0@1.5mm	
		Standard Unit	ISO1133 cm³/10min	ISO180/1A kJ/m2	ISO306 °C	UL94 Flame class rating x mm
		Condition	260°C/2.16kg *260°C/5kg	Notched+23°C	B/120	

## GENERAL VALUE PROPOSITION

### STRUCTURAL – LOW WARPAGE

- Available with non BR & CI flame retardent system, achieving UL94 listing
- Variety of stiffness and flow with balanced heat and practical impact for different wall thickness design
- Good aesthetics with all color capability and good paintability
- Lower coefficients of thermal expansion with good dimensional stability / low shrinkage

### FLAME RETARDENCY

Thin Wall – improved flame retardency to achieve thinner wall UL94 listing

- Non BR & CI flame retardent system
- Improved weld line performance
- Improved impact and heat with flow balance
- Ease of molding for productivity
- Enhanced hydrolytic & chemical resistance

## IMPACT

Meeting UL94 ratings over a wide range of gauges

- Non BR & CI flame retardent system
- Variety of melt flow offerings with balanced impact and heat performance

## RELATIVE COMPARISON OF PROPERTIES

	SABIC® PP	LEXAN™	CYCOLOY™	GELLOY™	XENOY™	VALOX™	XYLEX™	SABIC® PMMA	CYCOLAC™
Property	PP	PC	PC/ABS	PC/ASA	PC/PBT	PBT	PC/ Polyester	PMMA	ABS
Processability	+++	+	++	++	0	++	+	++	+++
Low Temperature Impact	+	+	++	+	+++	0	+	-	+
Heat	0	+++	++	++	++	+++	++	+	+
Non-halogenated FR available	Yes	Yes	Yes	Yes	N.A.	No	N.A.	N.A.	No
UV Stability	-	+	+	++	++	++	++	++	-
Weatherability	-	+	0	++	++	++	++	++	-
Colorability	+++	++	++	+	+	+	+	++	+++
Aesthetics	++	++	+	+	+	+	+	++	++
Paintability	0	++	++	++	++	0	++	++	++
Density	+++	+	+	+	+	+	+	+	++
Modulus/Impact balance	+	+	++	+	++	0	++	0	++
Transparency	No	Yes	No	No	No	No	Yes	Yes	No

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