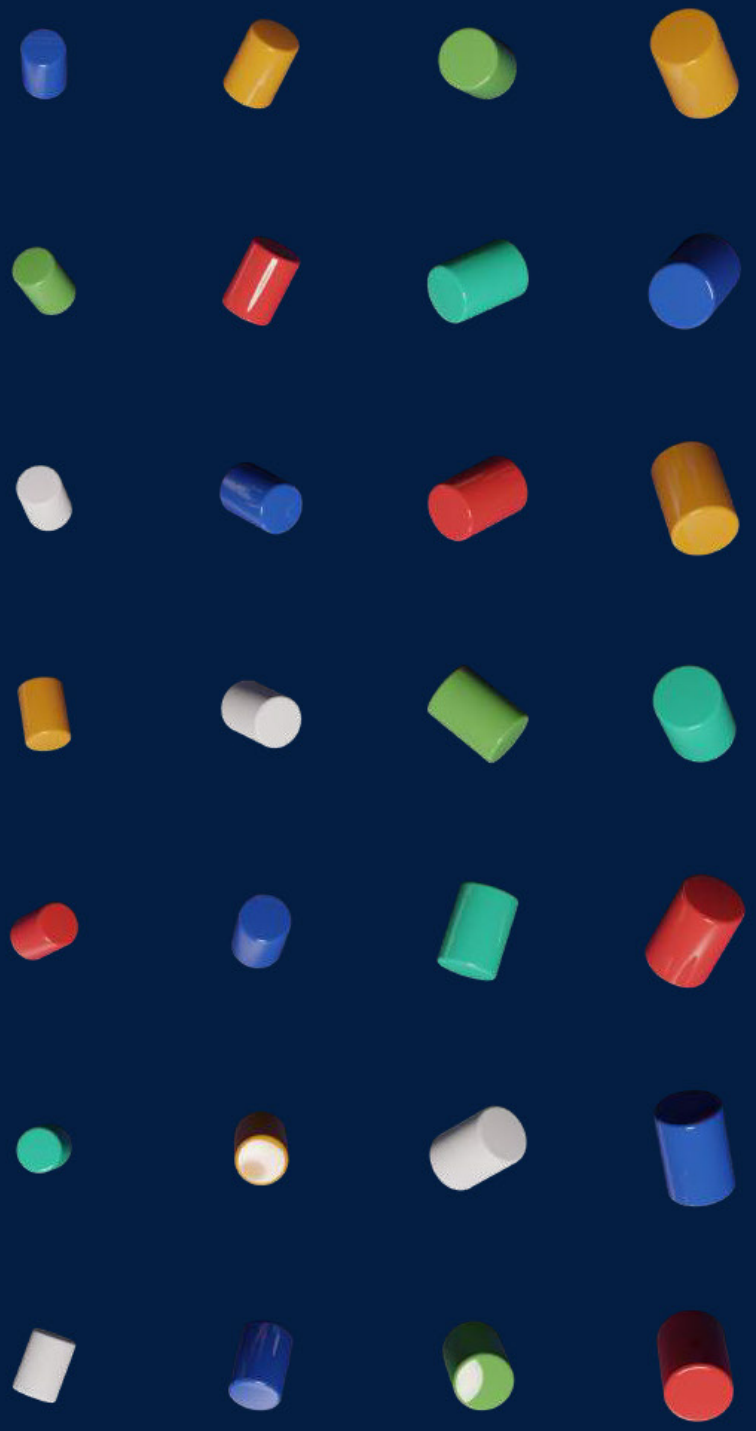
ENTEC

CHIMEI WONDERLOY® PC/ABS RESINS



CHIMEI

a step up

CHIMEI WONDERLOY® PC/ABS RESINS

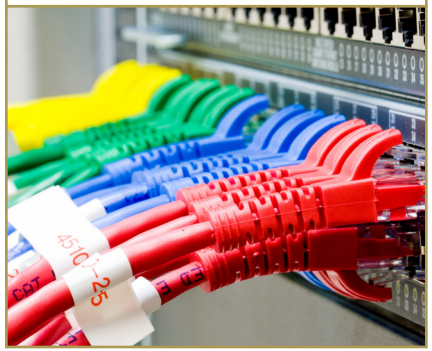
Entec Polymers offers CHIMEI WONDERLOY® PC/ABS resins. These resins blend the properties of polycarbonate: high heat resistance, high impact resistance, high stiffness and high strength with the properties of ABS: good processability, high impact strength at low temperature and electroplatability. Unlike many other PC and PC/ABS resins, WONDERLOY® is produced using no chlorine which helps to eliminate corrosion issues during processing.

WONDERLOY® PC/ABS resins find use in many different end markets, such as:

Automotive

Electronics

Network Equipment



Home Appliances

Toys

Sporting Goods

ENTEC

CHIMEI WONDERLOY® PC/ABS RESINS

PROPERTY	UNITS	ISO TEST METHOD	PC-345 High Flow	PC-345P High Flow, Electroplating	PC-365 High Heat, High Impact	PC-385 Ultra High Impact	PC-510 High Flow, Non-Halogen FR	PC-540 J01 High Heat, Non-Halogen FR	PC-540 High Heat, Non-Halogen FR	PC-540A High Heat, Non-Halogen FR	PC-545 Non-Halogen FR, High HDT, FR
Density	g/cm³	1183	1.1	1.1	1.13	1.15	1.17	1.18	1.18	1.18	1.19
Melt Flow Rate at 260°C / 2.16 kg	g/10 min	ASTM D1238	---	---	---	---	20	---	---	---	---
Melt Flow Rate at 260°C / 5 kg	g/10 min	1133	17	---	20	20	---	---	21	---	---
Melt Volume Rate at 260°C / 2.16 kg	cm³/10 min	1133	---	---	---	---	21	20	20	20	13
Melt Volume Rate at 260°C / 5 kg	cm³/10 min	1133	19	17	20	21	---	---	---	---	28
Mold Shrinkage, Flow Direction	%	294-4	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6	0.4 - 0.6
Tensile Strength at Yield	MPa	527-2-50	50	47	54	55	55	60	60	60	62
Tensile Strength at Break	MPa	527-2/50	42	41	50	57	45	55	55	55	58
Tensile Elongation at Break	%	527-2/50	100	100	120	130	110	110	120	120	130
Flexural Modulus	MPa	178	2100	1950	2200	2300	2500	2500	2500	2400	2350
Flexural Strength	MPa	178	75	70	80	85	80	90	90	90	95
Notched Izod Impact at 23°C	kJ/m²	180/1A	45	40	50	55	45	40	40	45	58
Notched Izod Impact at -30°C	kJ/m²	180/1A	40	35	45	45	---	15	---	---	18
Rockwell Hardness, R-Scale	---	ASTM D785	108	---	115	114	113	---	119	---	119
HDT at 1.8 MPa, Unannealed	°C	75-2/A	93	93	102	108	73	84	83	83	102
Vicat Softening Temperature	°C	306/B50	110	110	127	135	85	102	101	101	120
Vicat Softening Temperature	°C	306/A50	125	125	138	143	94	107	107	108	130
UL94 Flame Rating at 1.5 mm	---	UL 94	HB	HB	HB	HB	V0	V0	V0	V0	V0
UL94 Flame Rating at 2.1 mm	---	UL 94	---	---	---	---	V0 / 5VB	V0 / 5VB	V0 / 5VB	V0 / 5VB	---
UL94 Flame Rating at 2.5 mm	---	UL 94	---	---	---	---	V0 / 5VB	V0 / 5VA	V0 / 5VA	V0 / 5VA	V0 / 5VA
UL94 Flame Rating at 3 mm	---	UL 94	---	---	---	---	V0 / 5VA	V0 / 5VA	V0 / 5VA	V0 / 5VA	V0 / 5VA
PROCESSING CONDITIONS: Drying Temperature (°C)			80 - 100	80 - 100	80 - 100	80 - 100	85	90	90	90	80 - 100
PROCESSING CONDITIONS: Drying Time (Hours)			4	4	4	4	4	4	4	4	4
PROCESSING CONDITIONS: Hopper Temperature (°C)			200 - 230	200 - 230	200 - 230	200 - 230	200 - 230	200 - 220	200 - 220	200 - 220	200 - 220
PROCESSING CONDITIONS: Rear Zone Temperature (°C)			230 - 270	230 - 270	230 - 270	230 - 270	230 - 260	230 - 250	230 - 250	230 - 250	240 - 280
PROCESSING CONDITIONS: Middle Zone Temperature (°C)			230 - 270	230 - 270	230 - 270	230 - 270	230 - 260	230 - 250	230 - 250	230 - 250	240 - 280
PROCESSING CONDITIONS: Front Zone Temperature (°C)			230 - 270	230 - 270	230 - 270	230 - 270	230 - 260	230 - 250	230 - 250	230 - 250	240 - 280
PROCESSING CONDITIONS: Nozzle temperature (°C)			220 - 260	220 - 260	220 - 260	220 - 260	220 - 250	220 - 240	220 - 240	220 - 240	240 - 280
PROCESSING CONDITIONS: Mold Temperature (°C)			50 - 100	50 - 100	50 - 100	50 - 100	40 - 60	40 - 70	40 - 70	40 - 70	50 - 100