SALES PLASTICS.COM
Website: salesplastics.com
Email: jerry@salesplastics.com
Phone: +86 18657312116

Covestro Makrolon® 2400

Main characteristics:
- High toughness
- Good heat resistance
- Glass-like transparency, optical quality
- High dimensional accuracy and stability

Physical Properties	Metric	English	Comments
Bulk Density	0.660 g/cc	0.0238 lb/in³	pellets; ISO 60
Density	1.20 g/cc	0.0434 lb/in³	ISO 1183-1
Moisture Absorption at Equilibrium	0.12 %	0.12 %	ISO 62, 50% RH
Water Absorption at Saturation	0.30 %	0.30 %	ISO 62
Water Vapor Transmission	15.0 g/m²/day @Thickness 0.100 mm	0.966 g/100 in²/day @Thickness 0.00394 in	85% RH, film; ISO 15106-1
Oxygen Transmission	80.0 cc-mm/m²-24hr-atm @Thickness 0.0254 mm	203 cc-mil/100 in²-24hr-atm @Thickness 0.00100 in	3150 cc/m²-24hr-bar; film; b.o. ISO 2556
	80.0 cc-mm/m²-24hr-atm @Thickness 0.100 mm	203 cc-mil/100 in²-24hr-atm @Thickness 0.00394 in	800 cc/m²-24hr-bar; film; b.o. ISO 2556
Nitrogen Transmission	16.0 cc-mm/m²-24hr-atm @Thickness 0.100 mm	40.6 cc-mil/100 in²-24hr-atm @Thickness 0.00394 in	160 cc/m²-24hr-bar; film; b.o. ISO 2556
	16.0 cc-mm/m²-24hr-atm @Thickness 0.0254 mm	40.6 cc-mil/100 in²-24hr-atm @Thickness 0.00100 in	630 cc/m²-24hr-bar; film; b.o. ISO 2556
Carbon Dioxide Transmission	480 cc-mm/m²-24hr-atm @Thickness 0.0254 mm	1220 cc-mil/100 in²-24hr-atm @Thickness 0.00100 in	18900 cc/m²-24hr-bar; film; b.o. ISO 2556
	480 cc-mm/m²-24hr-atm @Thickness 0.100 mm	1220 cc-mil/100 in²-24hr-atm @Thickness 0.00394 in	4800 cc/m²-24hr-bar; film; b.o. ISO 2556
Linear Mold Shrinkage, Flow	0.0065 cm/cm @Thickness 2.00 mm	0.0065 in/in @Thickness 0.0787 in	60x60x2 mm; 500 bar; ISO 294-4
Linear Mold Shrinkage, Transverse	0.0065 cm/cm @Thickness 2.00 mm	0.0065 in/in @Thickness 0.0787 in	60x60x2 mm; 500 bar; ISO 294-4
Melt Flow	20 g/10 min @Load 1.20 kg, Temperature 300 °C	20 g/10 min @Load 2.65 lb, Temperature 572 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Puncture Resistance	5100 N @Temperature 23.0 °C	1150 lb (f) @Temperature 73.4 °F	ISO 6603-2
	6000 N @Temperature -30.0 °C	1350 lb (f) @Temperature -22.0 °F	ISO 6603-2
Ball Indentation Hardness	113 MPa	16400 psi	ISO 2039-1
Tensile Strength at Break	70.0 MPa	10200 psi	50 mm/min; ISO 527-1,-2

Website: salesplastics.com
Email: jerry@salesplastics.com
Phone: +86 18657312116

Tensile Strength, Yield	65.0 MPa	9430 psi	50 mm/min; ISO 527-1,-2
Elongation at Break	>= 50 %	>= 50 %	Nominal, 50 mm/min; ISO 527-1,-2
	120 %	120 %	50 mm/min; b.o. ISO 527-1,-2
Elongation at Yield	6.3 %	6.3 %	50 mm/min; ISO 527-1,-2
Tensile Modulus	2.35 GPa	341 ksi	1 mm/min; ISO 527-1,-2
Flexural Strength	96.0 MPa	13900 psi	2 mm/min; ISO 178
Flexural Yield Strength	72.0 MPa @Strain 3.5 %	10400 psi @Strain 3.5 %	2 mm/min; ISO 178
Flexural Modulus	2.35 GPa	341 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	12.0 kJ/m² @Thickness 3.20 mm, Temperature -30.0 °C	5.71 ft-lb/in² @Thickness 0.126 in, Temperature -22.0 °F	complete break; b.o. ISO 180-A
	75.0 kJ/m² @Thickness 3.20 mm, Temperature 23.0 °C	35.7 ft-lb/in² @Thickness 0.126 in, Temperature 73.4 °F	partial break; b.o. ISO 180-A
Charpy Impact Unnotched	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 179-1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179-1eU
	NB @Temperature -60.0 °C	NB @Temperature -76.0 °F	ISO 179-1eU
Charpy Impact, Notched	1.40 J/cm² @Thickness 3.00 mm, Temperature -30.0 °C	6.66 ft-lb/in² @Thickness 0.118 in, Temperature -22.0 °F	complete break; ISO 7391/b.o. ISO 179-1eA
	6.50 J/cm² @Thickness 3.00 mm, Temperature 23.0 °C	30.9 ft-lb/in² @Thickness 0.118 in, Temperature 73.4 °F	partial break; ISO 7391/b.o. ISO 179-1eA
Puncture Energy	55.0 J @Temperature 23.0 °C	40.6 ft-lb @Temperature 73.4 °F	ISO 6603-2
	65.0 J @Temperature -30.0 °C	47.9 ft-lb @Temperature -22.0 °F	ISO 6603-2
Tensile Creep Modulus, 1 hour	2200 MPa	319000 psi	ISO 899-1
Tensile Creep Modulus, 1000 hours	1900 MPa	276000 psi	ISO 899-1