

# CALIBRE™ IM 401-18

## Trinseo - Polycarbonate Resin

### General Information

#### Product Description

CALIBRE™ IM 401-18 Impact Modified Polycarbonate resins is available in opaque formulations that offer benefits ranging from superior low temperature impact strength to easy processing with improved impact strength.

#### Main Characteristics:

- Impact modified
- Superior low temperature toughness

#### Applications:

- Automotive interiors
- Automotive exteriors
- Low temperature appliances

#### General

Additive	• Impact Modifier
Features	• Good Processability • Good Toughness • Impact Modified • Low Temperature Impact Resistance
Uses	• Automotive Applications • Automotive Exterior Parts • Automotive Interior Parts • Low Temperature Applications
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

### Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.18		ASTM D792
Density	1.18	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	18	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	18	g/10 min	ISO 1133
Molding Shrinkage - Flow	0.60 to 0.80	%	ISO 294-4
Water Absorption (Saturation, 73°F)	0.32	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.12	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield)	8400	psi	ASTM D638
Tensile Stress (Yield)	8410	psi	ISO 527-2/50
Tensile Elongation <sup>2</sup> (Break)	110	%	ASTM D638
Tensile Strain (Break)	110	%	ISO 527-2/50
Flexural Modulus	331000	psi	ASTM D790
Flexural Modulus <sup>3</sup>	329000	psi	ISO 178
Flexural Strength	13000	psi	ASTM D790
Flexural Stress <sup>3</sup>	13100	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	12	ft-lb/in	ASTM D256
Tensile Impact Strength	280	ft-lb/in <sup>2</sup>	ASTM D1822

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed	250	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Annealed)	277	°F	ASTM D648
Vicat Softening Temperature	295	°F	ASTM D1525 <sup>4</sup>
Vicat Softening Temperature	295	°F	ISO 306/B50
Flammability	Nominal Value	Unit	Test Method
Flame Rating <sup>5</sup>			UL 94
0.06 in		HB	
0.12 in		HB	

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	248	°F
Drying Time	4.0	hr

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 2.0 in/min

<sup>3</sup> 0.079 in/min

<sup>4</sup> Rate A (50°C/h), Loading 2 (50 N)

<sup>5</sup> This rating not intended to reflect hazards presented by this or any other material under actual fire conditions.