

Triax® 2105

Polycarbonate + ABS
INEOS ABS (USA)

Message:

Triax® 2105 resin is an injection molding grade of ABS (acrylonitrile butadiene styrene) modified with PC (polycarbonate) for high-heat applications. Triax 2105 provides high heat resistance, high impact strength and low emissions. Its consistent, clean, natural color makes it ideally suitable for use with color concentrates.

Triax 2105 resin offers the right balance of properties for a variety of above-the-belt-line automotive applications or any application where higher temperature resistance and higher impact may be needed. As with any product, use of Triax 2105 resin in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
Features	Pure/High Purity		
	Low volatilization		
	Impact resistance, high		
	Heat resistance, high		
Uses	Application in Automobile Field		
Agency Ratings	EC 1907/2006 (REACH)		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.08	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	7.5	g/10 min	ISO 1133
Molding Shrinkage			ISO 2577
Vertical flow direction	0.60 - 0.80	%	ISO 2577
Flow direction	0.60 - 0.80	%	ISO 2577
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	2200	MPa	ISO 527-2/1
Tensile Stress (Yield, 23°C)	47.0	MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	45	%	ISO 527-2/50
Flexural Modulus ¹ (23°C)	2100	MPa	ISO 178
Flexural Stress ² (23°C)	75.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact ³			ISO 180/1A
-30°C	32	kJ/m ²	ISO 180/1A
23°C	43	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁴			
0.45 MPa, not annealed	108	°C	ISO 75-2/B
1.8 MPa, not annealed	91.0	°C	ISO 75-2/A
Vicat Softening Temperature	105	°C	ISO 306/B50

Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 60°C	9.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 60°C	9.0E-5	cm/cm/°C	ISO 11359-2
Flammability	Nominal Value	Unit	Test Method
Burning Rate ⁵	38	mm/min	SAE J369
Carbon Emission	13.0	µg/g	VDA 277
Injection	Nominal Value	Unit	
Drying Temperature	82.2 - 93.3	°C	
Drying Time	3.0 - 4.0	hr	
Dew Point - Desiccant Dryer	-28.9	°C	
Suggested Max Moisture	< 0.10	%	
Suggested Shot Size	50 - 75	%	
Suggested Max Regrind	20	%	
Rear Temperature	238 - 254	°C	
Middle Temperature	243 - 260	°C	
Front Temperature	249 - 266	°C	
Nozzle Temperature	249 - 266	°C	
Processing (Melt) Temp	249 - 271	°C	
Mold Temperature	60.0 - 82.2	°C	
Injection Pressure	62.1 - 124	MPa	
Injection Rate	Moderate		
Back Pressure	0.172 - 0.345	MPa	
Clamp Tonnage	2.8 - 5.5	kN/cm ²	
Cushion	< 3.18	mm	
Screw L/D Ratio	20.0:1.0		
Screw Compression Ratio	2.5:1.0		
Injection instructions			
Hold Pressure: 30 to 50% of Injection PressureScrew Speed: Moderate			
NOTE			
1.	2.0 mm/min		
2.	2.0 mm/min		
3.	10.0-mm x 4.0-mm, 0.25-mm notch		
4.	4 mm		
5.	(2 x 100 x 355 mm plaque		

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