## **Triax® 1315**

# Acrylonitrile Butadiene Styrene + Nylon INEOS ABS (USA)

#### Message:

Triax 1315 resin is a 15% glass-reinforced ABS (Acrylonitrile Butadiene Styrene)/Nylon alloy for injection molding. It is a semicrystalline thermoplastic with excellent processibility, good chemical resistance, good fatigue performance, and excellent abrasion characteristics. Triax 1315 resin offers added strength, rigidity, and heat resistance.

Triax 1315 resin is used for parts requiring good rigidity and warpage control. Typical applications include housings, shrouds handles for components of lawn and garden equipment, power tools, appliances, and sporting goods. Automotive applications include fasteners and interior functional components, housings, and shrouds. As with any product, use of Triax 1315 resin in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

General Information				
Filler / Reinforcement	nt Glass fiber reinforced material, 15% filler by weight			
Features	Semicrystallization			
	Low warpage			
	Rigidity, high			
	High strength			
	Workability, good			
	Good wear resistance			
	Fatigue resistance			
	Heat resistance, high			
Uses	Handle			
	Lawn and Garden Equipment			
	Electrical appliances			
	Power/other tools			
	Fasteners			
	Application in Automobile Field			
	Car interior parts			
	Sporting goods			
	Shell			
Agency Ratings	EC 1907/2006 (REACH)			
Forms	Particle			
Processing Method	Injection molding			
Multi-Point Data	Isochronous Stress vs. Strain (ISO 11403-1)			
	Isothermal Stress vs. Strain (ISO 11403-1)			
	Secant Modulus vs. Strain (ISO 11403-1)			

Physical	Dry	Conditioned	Unit	Test Method
Specific Gravity	1.17	1.17	g/cm³	ASTM D792

Specific Volume	0.850	0.850	cm³/g	ASTM D792
Molding Shrinkage - Flow	0.45	0.45	%	ASTM D955
Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness	107	404		A CTA 4 D 705
(R-Scale)	107	101		ASTM D785
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	5170	4620	MPa	ASTM D638
Tensile Strength (Yield)	82.7	75.2	MPa	ASTM D638
Tensile Elongation (Break)	3.5	4.1	%	ASTM D638
Flexural Modulus	4340	3760	MPa	ASTM D790
Flexural Strength (Yield)	130	112	МРа	ASTM D790
Impact	Dry	Conditioned	Unit	Test Method
Notched Izod Impact				ASTM D256
-40°C, 3.18 mm	69	69	J/m	ASTM D256
-40°C, 6.35 mm	59	64	J/m	ASTM D256
23°C, 3.18 mm	110	110	J/m	ASTM D256
23°C, 6.35 mm	140	140	J/m	ASTM D256
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ASTM D648
0.45 MPa, unannealed, 3.18mm	169	168	°C	ASTM D648
0.45 MPa, unannealed, 6.35mm	190	180	°C	ASTM D648
1.8 MPa, unannealed, 3.18mm	98.9	97.2	°C	ASTM D648
1.8 MPa, unannealed, 6.35mm	102	100	°C	ASTM D648
Vicat Softening Temperature	201	199	°C	ASTM D1525 <sup>1</sup>
CLTE - Flow				ASTM D696
-40 to 22°C	4.7E-5	4.5E-5	cm/cm/°C	ASTM D696
22 to 83°C	4.1E-5	4.0E-5	cm/cm/°C	ASTM D696
RTI Elec (1.50 mm)	60.0	60.0	°C	UL 746
RTI Imp (1.50 mm)	60.0	60.0	°C	UL 746
RTI (1.50 mm)	60.0	60.0	°C	UL 746
Flammability	Dry	Conditioned		Test Method
Flame Rating				UL 94
1.50 mm, Natural &				
Black	НВ	НВ		UL 94
3.00 mm, Gray	НВ	НВ		UL 94
Optical	Dry	Conditioned		Test Method
Gardner Gloss				ASTM D523
20°	7	7		ASTM D523
60°	26	26		ASTM D523

Injection	Dry	Unit		
Drying Temperature	87.8		°C	
Drying Time	2.0 - 4.0		hr	
Suggested Max Moisture	0.15 - 0.35		%	
Suggested Shot Size	50 - 70		%	
Suggested Max Regrind	20		%	
Rear Temperature	232 - 266		°C	
Middle Temperature	232 - 266		°C	
Front Temperature	232 - 266		°C	
Nozzle Temperature	249 - 260		°C	
Processing (Melt) Temp	238 - 271		°C	
Mold Temperature	37.8 - 65.6		°C	
Injection Pressure	41.4 - 82.7		MPa	
Injection Rate	Fast			
Back Pressure	0.345 - 0.689		MPa	
Clamp Tonnage	4.1 - 6.9		kN/cm²	
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				

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#### Recommended distributors for this material

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