

Zytel® 408 NC010A

Technical DataSheet | Supplied by Celanese

Zytel® 408 NC010A by Celanese is a natural colored polyamide 66 (PA 66) grade available in the form of pellets. Designed for processing by injection molding.

Product Type	PA (Polyamide, Nylon) > PA 66 (Nylon 66)
Physical Form	Pellets
Appearance	Natural
Product Status	AVAILABILITY NOT CONFIRMED
Geographical Availability	Central and Eastern Europe, North America, South and Central America, Western Europe, Asia / Pacific, Africa
Applications/ Recommended for	Injection molding - thermoplastics

Zytel® 408 NC010A Properties

Mechanical	Value & Unit	Test Condition	Test Method
Nominal Tensile Strain	35 %	at Break, 23°C	ISO 527-2
Modulus of Elasticity	2200 MPa		ISO 527-2
Impact Strength, Notched Charpy	15 kJ/m²	-30°C	ISO 179/1eA
Impact Strength, Notched Charpy	18 kJ/m²	23°C	ISO 179/1eA
Impact Strength, Notched Izod	19 kJ/m²	23°C	ISO 180/1A
Impact Strength, Unnotched Charpy	No Break kJ/m²	-30°C	ISO 179/1eU

Impact Strength, Unnotched Charpy	No Break kJ/m ²	23°C	ISO 179/1eU
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Flexural Modulus	11000 MPa		ISO 178
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Tensile Modulus, Creep	840 MPa	1000 hr, Conditioned	ISO 899-1
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Tensile Modulus, Creep	1360 MPa	1 hr, Conditioned	ISO 899-1
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Tensile Strain	55 %	at Break, 23°C	ISO 527-2
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Tensile Strain	6 %	at Yield, 23°C	ISO 527-2
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Tensile Strength at Yield	61 MPa	At 23°C	ISO 527-2
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Electrical	Value & Unit	Test Condition	Test Method
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Relative Permittivity	3.2	100 Hz	IEC 60250
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Relative Permittivity	2.9	1 MHz	IEC 60250
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Volume Resistivity	1.0E+17 ohm-cm	1.00 mm	IEC 60093
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Volume Resistivity	1.0E+13 ohm-cm	Conditioned	IEC 60093
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Dissipation Factor	0.02	1 MHz	IEC 60250
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Comparative Tracking Index (CTI)	600 V		IEC 60012
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Surface Resistivity	1.0E+15 ohm		IEC 60093
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Thermal	Value & Unit	Test Condition	Test Method
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UL RTI, Electrical	125 °C	1.50 mm, 3.00 mm	UL 746
UL RTI, Mechanical with Impact	75 °C	1.50 mm, 3.00 mm	UL 746
UL RTI, Mechanical without Impact	85 °C	1.50 mm, 3.00 mm	UL 746
Melting Point	263 °C	DSC	ISO 3146
Heat Deflection Temperature (HDT), Unannealed	66 °C	At 264 psi (1.80 MPa)	ISO 75-2A
Heat Deflection Temperature (HDT), Unannealed	155 °C	At 66 psi (0.45 MPa)	ISO 75-2-B
CTE, Linear, Parallel to Flow	1.3E-4 cm/cm-°C	23 to 55°C	ISO 11359-2
CTE, Linear, Transverse to Flow	1.3E-4 cm/cm-°C	23 to 55°C	ISO 11359-2

Physical	Value & Unit	Test Condition	Test Method
Water Absorption	2.2 %	Equilibrium, 23°C, 50% RH	ISO 62
Water Absorption at Saturation	7 %	At 23°C	ISO 62
Linear Mold Shrinkage, Flow	1.5 %		ISO 294-4
Density	1.09 g/cm ³		ISO 1183

Flammability	Value & Unit	Test Condition	Test Method
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Limiting Oxygen Index (LOI)	19 %		ISO 4589-2
Flame Rating, UL 94	HB	3.00 mm	UL 94
Flame Rating, UL 94	HB	1.50 mm	UL 94

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Zytel® 408 NC010A Processing Guidelines

Injection Molding	Value & Unit	Test Condition	Test Method
Mold Temperature	50 - 90 °C		
Melt Temperature	280 - 300 °C		
Moisture Content (Max)	0.2 %		

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