

## Triax KU2-3154

mineral reinforced; easy-flowing; reduced moisture absorption; very low warpage; injection molding grade; Pellets

ISO Shortname: [ABS+PA]

Property	Test Condition	Unit	Standard	Value	
				d.a.m.	cond.
<b>Rheological properties</b>					
Melt volume-flow rate	260 °C; 5 kg	cm <sup>3</sup> /(10 min)	ISO 1133	8,5	
Molding shrinkage, parallel	60x60x2; 260 °C / MT 80 °C; 500 bar	%	ISO 294-4	0,55	
Molding shrinkage, normal	60x60x2; 260 °C / MT 80 °C; 500 bar	%	ISO 294-4	0,6	
Post- shrinkage, parallel	60x60x2; 80 °C; 1 h	%	ISO 294-4	0,1	
Post- shrinkage, normal	60x60x2; 80 °C; 1 h	%	ISO 294-4	0,1	
<b>Mechanical properties (23 °C/50 % r. h.)</b>					
Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2700	2000
Yield stress	50 mm/min	MPa	ISO 527-1,-2	55	39
Yield strain	50 mm/min	%	ISO 527-1,-2	2.9	4
Nominal strain at break	50 mm/min	%	ISO 527-1,-2	35	
Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	38	33
Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	35	>= 100
Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	150	>= 150
Charpy impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eU	100	60
Charpy notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eA	8	
Charpy notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eA	6	
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1U	100	>= 100
Izod impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1U	60	55
Izod notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1A	7.0	>= 7.0
Izod notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1A	5	5
Flexural modulus	2 mm/min	MPa	ISO 178	2500	1800
Flexural strength	2 mm/min	MPa	ISO 178	80	62
Flexural strain at flexural strength	2 mm/min	%	ISO 178	5.0	6.0
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	75	55
<b>Thermal properties</b>					
Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	83	93
Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	97	96
Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	105	95
Vicat softening temperature	10 N; 120 °C/h	°C	ISO 306	130	115
Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0,65	
Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	1,0	
Burning behavior UL 94 (1.6 mm)	1.5 mm	Class	UL 94	HB	
<b>Electrical properties (23 °C/50 % r. h.)</b>					
Relative permittivity	100 Hz	-	IEC 60250	3.4	5.0
Relative permittivity	1 MHz	-	IEC 60250	3.1	3.3

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Dissipation factor	100 Hz	10 <sup>-4</sup>	IEC 60250	150	650
Dissipation factor	1 MHz	10 <sup>-4</sup>	IEC 60250	150	400
Volume resistivity		Ohm·m	IEC 60093	1E13	1E11
Surface resistivity		Ohm	IEC 60093	1E15	1E14
Electric strength	1 mm	kV/mm	IEC 60243-1	40	40
Comparative tracking index CTI	Solution A	Rating	IEC 60112	600	
<b>Other properties (23 °C)</b>					
Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	~3,9	
Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	~1,3	
Density		kg/m <sup>3</sup>	ISO 1183	1110	
Glass fiber / glass bead / filler content		%	ISO 3451-1	8	
<b>Processing conditions for test specimens</b>					
Injection molding-Melt temperature		°C	ISO 294	260	
Injection molding-Mold temperature		°C	ISO 294	80	
Injection molding-Injection velocity		mm/s	ISO 294	40	

### Disclaimer

Disclaimer for developmental products

This is a developmental product. Further information, including amended or supplementary data on hazards associated with its use, may be compiled in the future. For this reason no assurances are given as to type conformity, processability, long-term performance characteristics or other production or application parameters. Therefore, the purchaser/user uses the product entirely at his own risk without having been given any warranty or guarantee and agrees that the supplier shall not be liable for any damages, of whatever nature, arising out of such use. Commercialization and continued supply of this material are not assured. Its supply may be discontinued at any time. Our products are sold and our advisory service is given in accordance with the current version of our General Conditions of Sale and Delivery.

#### Test values

Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mould/die, the processing conditions and the colouring.

#### Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded. Since excessively high temperatures are generally the result of operator error or defects in the heating system, special care and controls are essential in these areas.

#### Conditioning

Conditioning in accordance with ISO 1110 (70°C; 62% r.H.)

Styrolution Köln GmbH, D-50769 Köln