

Technical Films

Udel® PSU | TC 00151

Properties: Udel® PSU | TC 00151 is a tough, rigid, transparent, ultrastable high-performance engineering thermoplastic which maintains its properties at temperatures ranging from -101°C to +149°C. Udel® PSU | TC 00151 is resistant to oxidation and hydrolysis, and withstands prolonged exposure to high temperatures and repeated sterilization. The long-term resistance to environmental stress-cracking has opened up many new applications including chemical processing equipment, food processing components, fume scrubbing and other pollution control devices, and filtration equipment involving contact with highly caustic media.

Delivery forms: Udel® PSU | TC 00151 can be delivered on roll or as tape, customized cut and die-cut part as well as self-adhesive. Other delivery forms upon customer request.

Properties	Test method	Unit	Value
Melt Flow Rate	D-3307	g/10 min	6.5
Specific Gravity	D-1505		1.24
Water Absorption, 24 h.	D-570	%	0.3
Tensile Strength, 23°C	D-638	psi	10,200
Elongation, 23°C	D-638	%	50-100
Compressive Strength, 23°C at 5% strain	D-695	psi	40,000
Impact Strength, 23°C, Notched Izod	D-256	J/m	69
Flexural Modulus, 23°C	D-790	psi	390,000
Rockwell Hardness, R Scale	D-785	R	120
Coefficient of Friction	D-1894		0.5

Dr. Dietrich Müller GmbH

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Deformation Under Load, 22°C, 4,000 psi.	D-621	%	<0.2
Glass Transition Temperature	D-3418	°C	190
Deflection Temperature (264 psi)	D-648	°C	174
Oxygen Index	D-2863	%	30
Max. Service Temperature		°C	149
Thermal Conductivity	C-177	W/m-°C	0.26
Flammability	UL 94		94V-2
Surface Resistivity	D-257	ohm-sq	3 x 10 ¹⁶
Volume Resistivity	D-257	ohm-cm	5 x 10 ¹⁶
Dielectric Strength (10 mil film)	D-149	V/mil	2,200
Dielectric Constant, 21°C, 60 Hz	D-150		3.15
Dissipation Factor, 21°C, 60 Hz	D-150		0.0011
Arc Resistance	D-495	sec	60

Please note:

The information in this data sheet is based on our current knowledge and experience. They do not disengage the fabricator and user from own tests and inspections because of the plenty of possible effects. There is no judicial binding assurance of certain properties or of the qualification for a concrete application in our declaration. We recommend consulting us in individual cases. The acceptor of our products has to observe possible industrial property rights as well as present laws by himself.