



UNITAL LZ and **UNITAL LZU** are copolymer acetal materials capable of being permanently marked utilizing standard industrial lasers. UNITAL LZ is standard copolymer acetal, while UNITAL LZU is a UV stabilized formulation designed for use where significant or prolonged exposure to ultraviolet light, either natural sunlight or artificial lighting, is anticipated.

Component parts machined from either product can be marked by laser with company logo's, part numbers, serial numbers, barcodes or other two dimensional designs.

UNITAL LZ and UNITAL LZU are available in rod or sheet form and are black in color, with laser marked characters and designs appearing white in color.

Typical Physical Properties

Property	Test Method	Units	UNITAL LZ	UNITAL LZU
			Laser Markable Acetal	Laser Markable Acetal, UV
Mechanical				
Tensile Modulus	ISO 527-2/1A	MPa	2750	2700
Tensile Stress @ Yield (50mm/min)	ISO 527-2/1A	MPa	64	63
Tensile Strain @ Yield (50mm/min)	ISO 527-2/1A	%	9	9
Flexural Modulus of Elasticity (23° C)	ISO 178	MPa	2700	2670
Charpy Notched Impact (23° C)	ISO 179/1eA	kJ/m ²	4.7	4.7
Izod Notched Impact (23° C)	ISO 180/1A	kJ/m ²	-	5.2
Thermal				
Coeff. of Linear Thermal Exp. (par.)	ISO 11359-2	E-4/° C	1	1
Coeff. of Linear Thermal Exp. (norm)	ISO 11359-2	E-4/° C	1.1	1.1
DTUL (1.8 MPa)	ISO 75-1/-2	°C	98	95
Melting Point	ISO 11357-1,-2,-3	°C	167	167
Miscellaneous				
Density	ISO 1183	Kg/m ³	1410	1410
Water Absorption/Saturation	ISO 62	%	0.75	0.75
Color		--	Black	Black

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