

Pel-Urethane®

Product Name	MU-231A/MU-231B
Product Category	Polyurethane Resin for Electronics
Usage	Substrates
Function	Low Stress, High Thermal Conductivity, Stress Release, Shock Absorption

As supplied

(Typical Value)

Item	Condition	Unit	MU-231A	MU-231B
Appearance	visual	–	Black	Brown
Specific Gravity	25°C	–	2.52	1.21
Viscosity	25°C	mPa·s	18,250(40°C)	200
Mixing Ratio	parts by weight		100/6	
Mixed Viscosity	25°C(256g,2min)	mPa·s	22,000	
	A:50°C, B:25°C	mPa·s	12,000	
Pot Time	25°C, Time for viscosity to double	min	10	
Gel Time	60°C,40g	min	7~8	

Standard Curing Condition

60°C-2hour or 80°C-1hour

As cured

Item	Condition	Unit	Typical Value
Appearance	JIS K 7215 25°C	shore A	80
Hardness	JIS K 7112 25°C	–	2.42
Tensile Strength	JIS K 7312 25°C	MPa	4.3
Elongation	JIS K 7312 25°C	%	42
Glass Transition Temperature	TMA	°C	-46.3
Coefficient of Thermal Expansion	above Tg	/°C	8.8×10^{-5}
	below Tg	/°C	4.2×10^{-5}
Shear Adhesive Strength	JIS K 6850 25°C	MPa	2.07 (ABS)
Volume Resistivity	JIS K 6911 25°C	$\Omega \cdot \text{cm}$	5.7×10^{14}
Water Absorption	boil/2hrs,2mmt	%	0.39
dielectric constant	JIS K 6911 1kHz 100kHz 1MHz	–	7.7, 6.5, 6.1
dielectric tangent	JIS K 6911 1kHz 100kHz 1MHz	%	5.5, 5.1, 4.3
Thermal Conductivity	300g	W/mK	1.8
Flame Resistance	UL-94 1/8 inch	2mmt	Equivalent V-2

The above values are typical and not specification



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