

Pelnox®

Product Name	ME-272 TYPE F/HV-136
Product Category	Potting Resin for Seiconductors, Resin for Car Electro Devices & Sensors
Usage	Semiconductor Modules, Car Electro Devices, Sensors
Function	Heat Resistant, Flame Resistant, Heat Cycle Resistant, Humidity Resistant

As supplied

(Typical Value)

Item	Condition	Unit	ME-272 TYPE F	HV-136
Appearance	visual	–	Black viscous liquid	Grey white liquid
Specific Gravity	25°C	–	1.85	1.78
Viscosity	25°C	mPa·s	30,000	5,000
Mixing Ratio	parts by weight		100/100	
Pot Life	25°C, time up to double viscosity	hour	8	
Gel Time	100°C, 140°C 40g	minute	40, 7	
Mixed Viscosity	25°C	mPa·s	15,000	

Standard Curing Condition 170°C x 1 hour

As cured

Item	Condition	Unit	Typical Value
Specific Gravity	Buoyancy method 25°C		1.83
Hardness	JIS K-7215 25°C	Shore D	93
Heat Distortion Temperature	JIS K-7191-3	°C	171
Glass Transition Temperature	TMA	°C	164
Coefficient of Thermal Expansion	below Tg	10 ⁻⁵ /°C	2
	above Tg	10 ⁻⁵ /°C	7.4
Flexural Strength	JIS K-6911	MPa	117
Flexural Modulus	JIS K-6911	MPa	10,000
Tensile Strength	JIS K-6911	MPa	65
Shear Adhesive Strength	JIS K-6850 Al-Al	MPa	9
	JIS K-6850 Cu-Cu	MPa	6
Shrinkage		%	0.39
Thermal Conductivity	Rapid thermal conductivity meter	W/mk	0.50
Specific Heat	JIS K-7123 -25°C	J/g·deg	0.58
	25°C		0.69
	50°C		0.75
	100°C		0.80
	150°C		0.84
	200°C		0.89
Breakdown Voltage	JIS K-2110 25°C	kV/mm	17
	100°C		19
	150°C		20
Volume Resistivity	JIS K 6911 25°C	Ω-cm	5.0 x 10 ¹⁶
	JIS K 6911 boil for 2hrs	Ω-cm	3.0 x 10 ¹⁶
Dielectric Constant	JIS K-6911 1KHz		4.5
	1MHz		4
Dielectric Loss Tangent	JIS K-6911 1KHz		0.008
	1MHz		0.05
Water Absorption	JIS K 6911 boil for 2hrs	wt%	0.1
Flame Resistance	UL-94		V-0 recognized

The above values are typical and not specification.



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