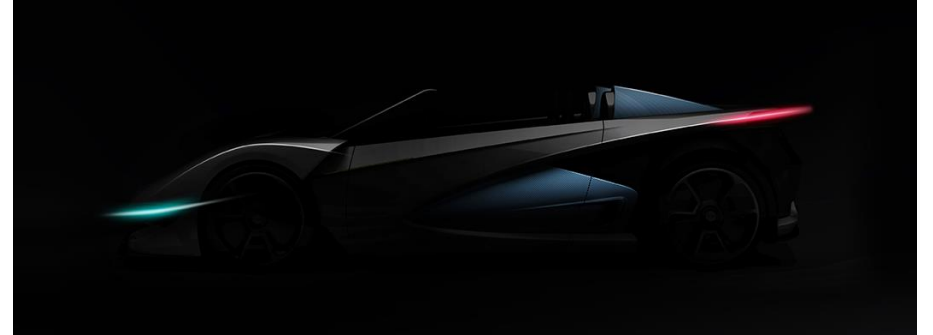


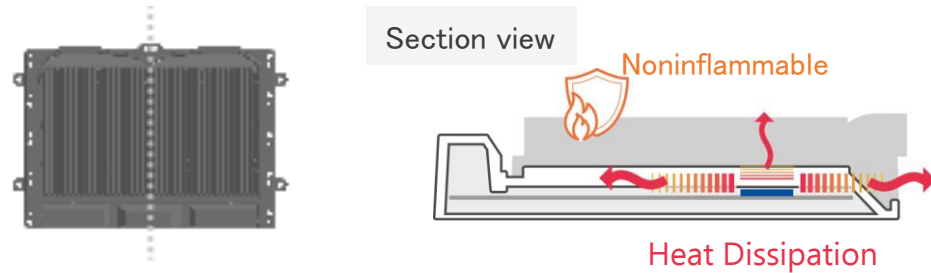
Plastics Housing (Injection Molding)



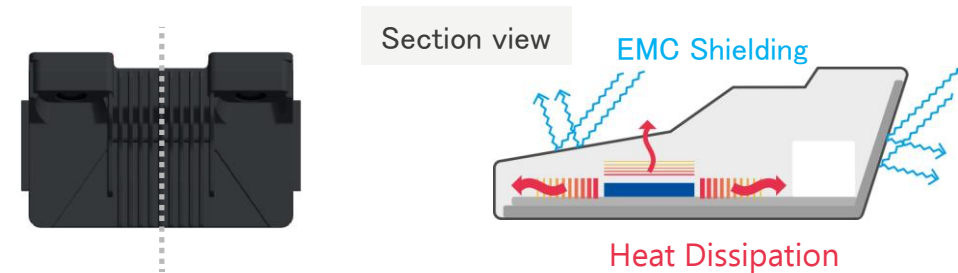
Product Overview

SEKISUI developed two types of resin materials as the alternative to metals.

Heat Dissipation Grade



EMC & Heat Dissipation Grade



Product Characteristics

		Thermal Conductivity	EMC Shielding	Flammability
	Heat Dissipation Grade	< 24W/m·K	--	V0
	EMC & Heat Dissipation Grade	< 14W/m·K	40dB Attenuation	--

Properties

Items	Unit	Test Standard	Heat Dissipation (PP)			Heat Dissipation + EMI Shielding (PP)		
			HD01-ST	HD02-IM	HD03-FR	EH01-ST	EH01-HP	EH02-LW
Tensile Stress	MPa	ISO 527	35	30	16	58	42	43
Tensile Strain	%	ISO 527	2	4	1	2	2	2
Tensile Modulus	GPa	ISO 527	9	4	6	9	10	7
Bending Strength	MPa	ISO 178	57	46	45	82	73	66
Bending Modulus	GPa	ISO 178	20	4	7	13	10	10
Charpy (with Notch)	KJ/m2	ISO 179	2	12	2	4	3	3
High-load (1.8 MPa)	°C	ISO 75	130	65	89	151	149	142
Low-load (0.45 MPa)	°C	ISO 75	140	131	144	160	160	157
Thermal expansion coefficient (MD)	10 ⁻⁵ /°C	ISO 11359	1	1	2	1	1	2
Thermal expansion coefficient (TD)	10 ⁻⁵ /°C	ISO 11359	4	10	6	6	5	7
Thermal conductivity (Surface)	W/(mK)	ISO 22007-4	17.0	9.0	24.0	9.7	14.0	11.7
Thermal conductivity (Thickness)	W/(mK)	ISO 22007-4	3.5	1.5	3.5	1.7	3.1	2.0
Surface Resistance Value	Ω	ISO 3915	10 ^{3~4}	10 ^{3~4}	10 ^{3~4}	10 ^{-1~0}	10 ⁻¹	10 ⁰
Flammability Test	UL	FMVSS 302	EQ. to HB	EQ. to HB	EQ. to V0	EQ. to HB	EQ. to HB	EQ. to HB
Density	g/cm3	ISO 1183	1.49	1.37	1.47	1.42	1.46	1.31

Heat Dissipation Test

Test Conditions

Electric power : 3.1W

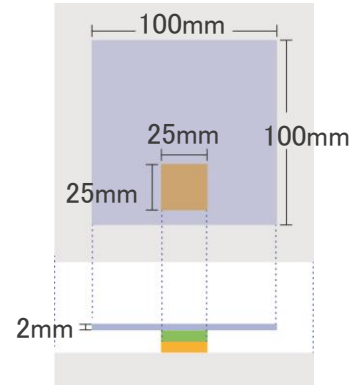
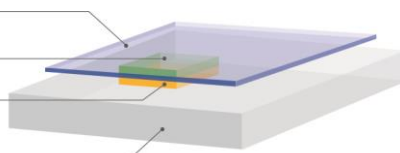
Thermal Conductive Grease(TIM) (by Ainex.) : 3.8W/mK

Sample

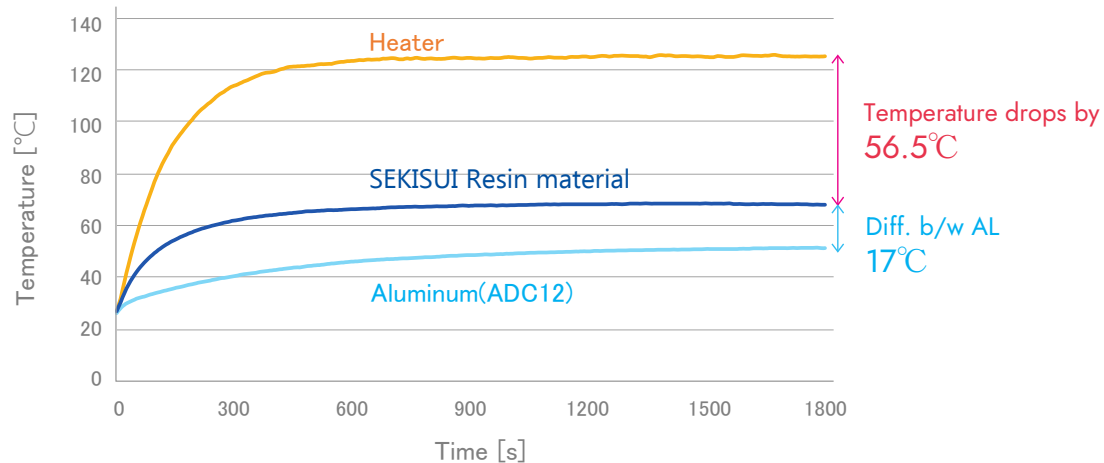
TIM (Grease)

Ceramic Heater
(by Sakaguchi E.H VOC Corp.)

Heat Insulation Mat



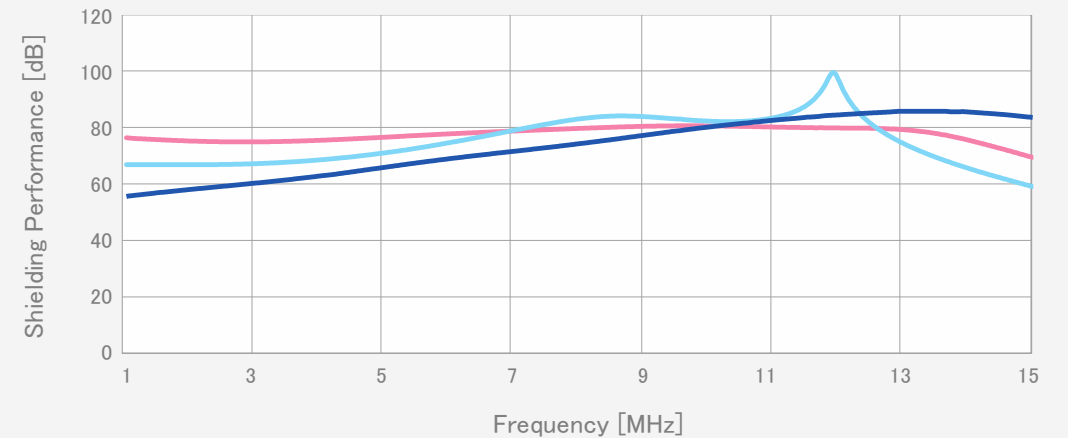
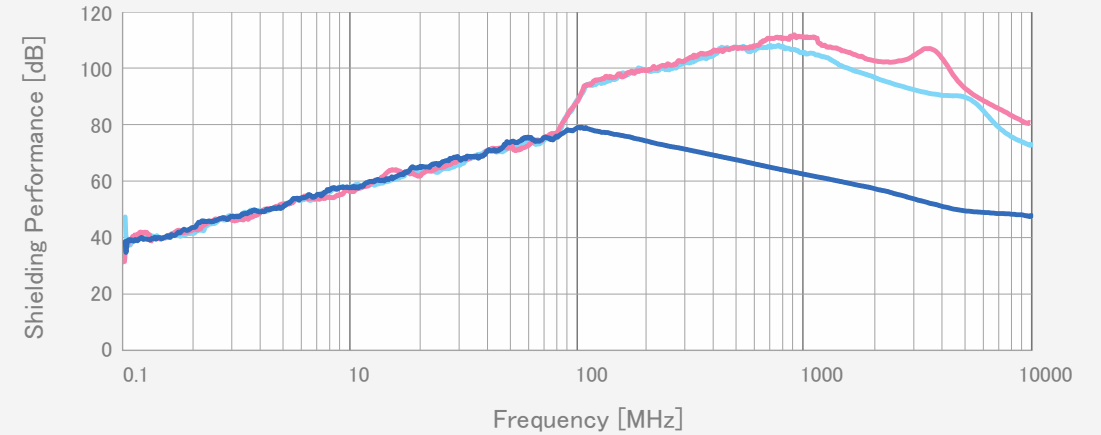
Test Result



EMC shielding Test



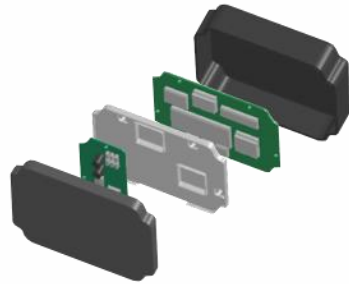
SEKISUI Resin material Aluminum(ADC12) SECC



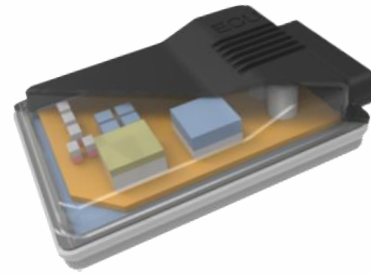
Applications for Automobile



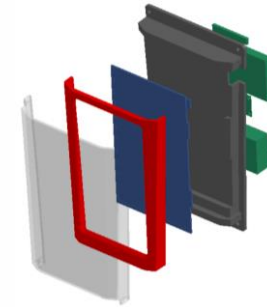
ADAS
Camera Housing



Rader Housing



ECU Housing



Cluster Housing

A new frontier, a new lifestyle.

SEKISUI