

# Lambda GEL<sup>®</sup> DP

## Paste-type (Grease) Thermal Conductive Gel



### ◆ Lambda GEL/DP ◆

Fill gaps around the heat source for improved heat dissipation.  
 Chemical bonds in the **Lambda GEL DP** eliminate running and vaporization problems.  
**Lambda GEL DP** easily spreads over heat generating devices.

#### About Lambda GEL DP series

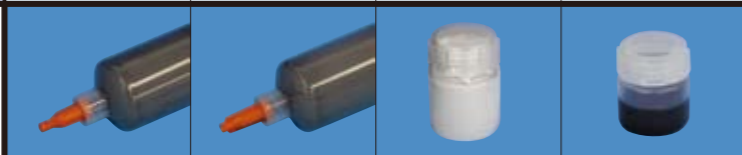
- ◆ **Lambda GEL DP series** are very soft paste-type (grease) gel with heat conducting properties.
- ◆ Cross-linked particles of the **Lambda GEL DP** eliminate running and vaporization problems seen with other traditional grease and phase change materials.
- ◆ Electrically insulative, **Lambda GEL DP series** are ideal for electronic devices.

#### Product Line

Product	Features
<b>DP-100</b>	High thermal conductive type : 6.5W/m·k
<b>DP-200</b>	Soft type, Easily spreadable
<b>DP-300</b>	Most cost effective, Softer type
<b>REP-100</b>	Thermal conductive and electromagnetic noise absorbent type

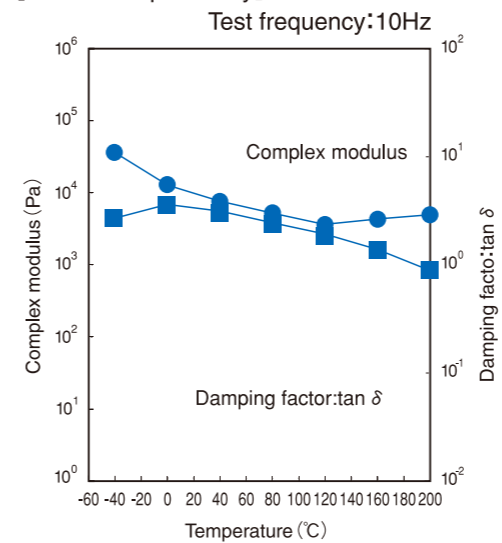
#### Typical Properties

Item	Paste-type Thermal Conductive Gel DP Series				Remark	
	DP-100	DP-200	DP-300	EMI absorbent + Thermal Conductive Gel REP-100		
Thermal conductivity (W/m·K)	Our tests	6.5	4.8	4.8	1	—
	Hot Wire Method #1	2.1	1.6	1.6	0.6	
Hardness (Cone penetration 1/10mm, not mixed)		51	55	60	60	JIS K 6249 (1/4cone)
Appearance		Gray paste	Gray paste	White paste	Black paste	—
Specific gravity		2.8	2.6	2.7	2.9	JIS K 6249
Volume resistivity (Ω·cm)		5.9×10 <sup>13</sup>	7.2×10 <sup>14</sup>	1.4×10 <sup>14</sup>	2.0×10 <sup>11</sup>	JIS K 6249
Dielectric breakdown voltage (kV/mm)		5.0	5.6	9.6	4.0	JIS K 6249
Dielectric constant	<50Hz	8.9	7.6	4.4	—	JIS K 6249
	<1kHz	7.8	6.7	4.2	—	JIS K 6249
	<1MHz	7.0	6.6	4.0	—	JIS K 6249
Dielectric dissipation factor	<50Hz	0.234	0.017	0.005	—	JIS K 6249
	<1kHz	0.061	0.007	0.004	—	JIS K 6249
	<1MHz	0.015	0.005	0.0004	—	JIS K 6249
Low molecular weight Siloxane level ΣD4-10 (ppm)	Solvent extraction method	less than 700	less than 900	less than 300	less than 300	—
	Head space Method #2	less than 1	less than 3	less than 1	less than 1	—
RoHS controlled substances		Not detected	Not detected	Not detected	Not detected	—
Temperature range (°C)		-40~200	-40~150	-40~120	-40~150	—

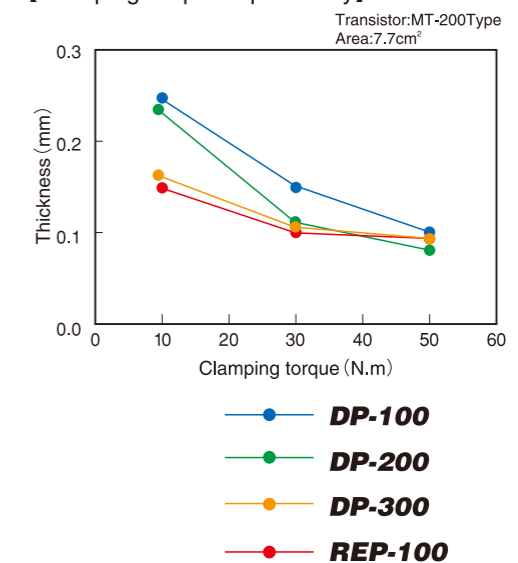


#1 Hot Wire Method : Using the QTM -500 Quick Thermal Conductivity Meter, from Kyoto Electronics Manufacturing Co., LTD.  
 #2 Head Space Method : at 70°C

#### 【Thermal Dependency】 DP-100



#### 【Clamping Torque Dependency】



#### 【Thermal Resistance】

Thickness (mm)	0.10	0.15	0.20	0.30
<b>DP-100</b>	—	0.13	0.15	0.18
<b>DP-200</b>	0.13	—	0.17	0.22
<b>DP-300</b>	0.09	—	0.17	0.25
<b>REP-100</b>	0.22	—	0.36	0.50

Transistor:MT-200Type  
Heat input:20w

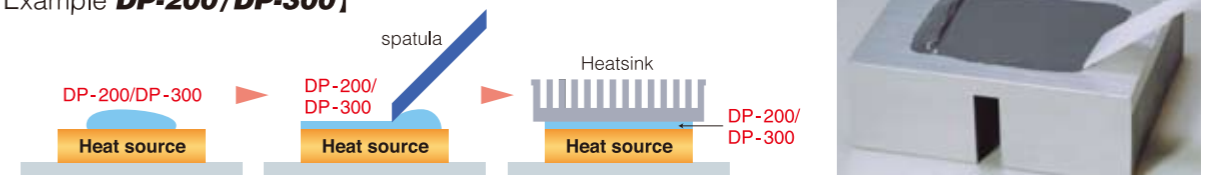
#### 【Suggested Uses】

- Gaps around heat sources such as high performance semiconductors.
- The surface, underside, and lead lines of heat sources such as ICs.
- Sources of heat where it is difficult to fix sheet-type thermal gel.
- Where there is insufficient room for thermal conductive material.

#### 【Filling Example DP-100】



#### 【Coating Example DP-200/DP-300】



#### 【Delivery Format】

#### 【Basic Specifications】

<b>DP-100/DP-200</b>	Syringe	30cc
<b>DP-300</b>	Bottle	30cc
<b>REP-100</b>	Bottle	20cc

Other package is also available.

