Thermal Conductivity Comparison in Silicone

(All AA combination v.s. all conventional alumina combination)

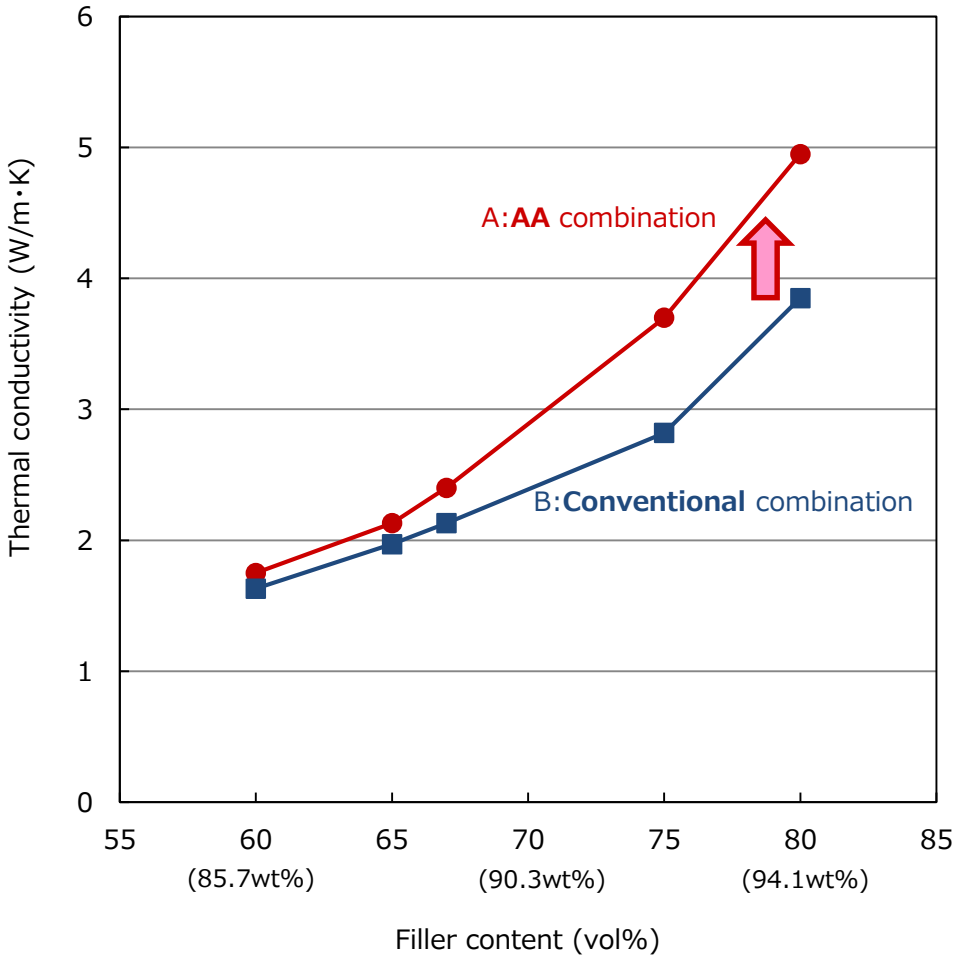
Sumitomo Chemical's Advanced Alumina (AA* series) products are single crystal α-alumina and are often used for applications where thermal dissipation is required.

- Using AA-18, AA-3, and AA-04\ as filler will increase thermal conductivity by >20%!

0.3μ、5μ、45μ・・・ conventional alumina

	Coarse	Middle	Fine
A	AA-18	AA-3	AA-04
B	45μ	5μ	0.3μ

Silicone Resin : SYLGARD 527 (Dow Corning Toray)
Silane Coupling Agent : Z6210 (Dow Corning Toray)
Thermal Conductivity : Hot Disk Method



Thermal Conductivity Comparison in Epoxy

Epoxy resins typically exhibit low thermal conductivity and this limits their application for electronics.

- Using Sumitomo Chemical's **Advanced Alumina (AA* series)** as a filler will significantly increase thermal conductivity.

0.3μ、5μ、70μ・・・ conventional alumina

	Coarse	Middle	Fine
A	70u	**AA-3**	**AA-04**
B	70μ	5μ	**AA-04**
C	70μ	5μ	0.3μ

Epoxy Resin
Silane Coupling Agent
Thermal Conductivity : Lazer Flush Analyzer