

Alicyclic DDSQ Monomer (Developed product)

– Monomer for high heat-resistant resin –

Product

Bifunctional monomer with double-decker silsesquioxane as alicyclic acid dianhydride

Application

High heat-resistant resin material (polyimide resin, epoxy and others)

Feature

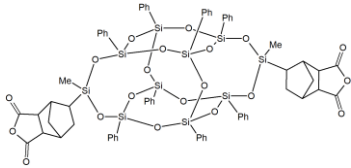
By incorporating it into the main chain of high heat-resistant resin, it is possible to impart properties such as low dielectric and low linear thermal expansion

BACKGROUND

JMTC has concluded a license agreement for the alicyclic dianhydride of double-decker silsesquioxane developed by JNC Co., Ltd. and is promoting commercialization.

PRODUCT OVERVIEW

Among silsesquioxanes, which are silicon compounds with low dielectric constant and high heat resistance, alicyclic acid dianhydrides are bifunctionalized with double-decker silsesquioxane, which has a particularly bulky and rigid structure and has excellent heat resistance and mechanical strength. By incorporating double-decker silsesquioxane into the main chain of high heat-resistant resin such as polyimide and epoxy, it is expected to provide properties such as low dielectric and low linear thermal expansion in addition to improved heat resistance.

CAS No.	948849-07-8	< Structural formula > 
Molecular formula	$C_{68}H_{64}O_{20}Si_{10}$	
Molecular weight	1482.09	
Melting point	219~294°C	
Decomposition temperature	430°C	
Acid anhydride equivalent	909g/eq.	
Bulk density	0.46g/ml	
Appearance	White powder	

PRODUCT FEATURE

Low-dielectric

dielectric constant
2.4~2.8
(Synthesis example of polyimide)

Highly heat-resistant resin

heatproof temperature
500°C or so
(Synthesis example of polyimide)

Low Tg

Tg250~270°C
(Synthesis example of polyimide)

Contact information