

Fluorinated oil and grease DEMNUM / DEMNUM GREASE

 TECHNICAL
DATASHEET

DEMNUM and DEMNUM GREASE are lubricant having excellent thermal and chemical stability.

Introduction

- DEMNUM is a perfluoropolyether oil that has a straight-chain structure developed using DAIKIN's original technology.
- **Excellent thermal and chemical stability and inertness.**
- Excellent solvent resistance.
- It is suitable for usage as a lubricant especially **where durability and cleanliness are required**

General physical properties of DEMNUM

items		Test method	S-20	S-65	S-200
Average molecular weight		¹⁹ F-NMR	2700	4500	8400
Kinematic viscosity (cSt)	20°C	B-type viscometer	53	150	500
	40°C		25	65	200
	60°C		14	33	95
	100°C		5	15	30
Viscosity index		JIS K2283	150	180	210
Density 20°C (g/cm ³)		Specific gravity bottle method	1.86	1.87	1.89
Pour point (°C)		JIS K2269	-75	-65	-53
Refractive index, n _D 20°C		Refractometer	1.290	1.295	1.298
Surface tension (mN/m)		Wilhelmy 法	17.7	18.0	19.1
Vapor pressure (hPa)	20°C	Boiling point method	1×10 ⁻⁵	3×10 ⁻⁷	3×10 ⁻¹¹
	100°C		2×10 ⁻²	3×10 ⁻⁴	2×10 ⁻⁷
Glass-transition temperature (°C)		DSC	-115	-111	-104
Specific heat (J/g°C)		Adiabatic method	1.0		
Dielectric breakdown voltage 2.5mm (kV)		—	72		
Structural formula		—	F-(CF ₂ CF ₂ CF ₂ O) _n -CF ₂ CF ₃		

* The above numeric values are representative and not guaranteed.

General physical properties of DEMNUM GREASE

item	Test method	condition	L-65	L-200
Appearance	Visual check		White opaque	White opaque
Penetration	JIS K2220	0 strokes	280±15	280±15
		60 strokes	280±15	280±15
Mechanical stability	JIS K2220	10000 strokes	260~290	260~290
		100000 strokes	260~290	260~290
Apparent viscosity	Haake-Rotovisco viscometer	25°C, 300s ⁻¹	2500 mPa·s	5300 mPa·s
Dropping point	JIS K2220		None	None
Evaporation	JIS K2220	200°C, 22hrs	2 mass% or less	0.1 mass% or less
		100°C, 30hrs	3 mass% or less	2 mass% or less
		200°C, 30hrs	12 mass% or less	10 mass% or less
Oil separation	JIS K2220	300°C, 30hrs	–	16 mass% or less
		25°C, 24hrs	1a	1a
		100°C, 24hrs	1a	1a
Oxidation stability	JIS K2220	100°C, 100hrs	0.1 or less	0.1 or less
Low-temperature rotation torque	JIS K2220	-60°C	5.9 N·cm	10.8 N·cm
		-70°C	9.8 N·cm	21.6 N·cm
Water durability	JIS K2220	38°C, 1hr	1 mass% or less	1 mass% or less

* The above numeric values are representative and not guaranteed.

Handling method/Safety information

- Be sure to read the notes on SDS and labels before use.
- This product is intended for general industry, and therefore its adequacy and safety as a raw material for medical purposes cannot be guaranteed.

Packing specification

- DEMNUM ; 1kg (plastic bottle), 25kg (can)
- DEMNUM GREASE L-65 ; 50g (tube), 1kg (plastic container), 16kg (can)
- L-200; 50g (tube), 750g (cartridge), 1kg (plastic container), 16kg (can)

For more information, visit our website.

DAIKIN INDUSTRIES, LTD.

<https://www.daikinchemicals.com/>

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