A QUAKER CHEMICAL COMPANY

Innovation and Experience at Work

CHRISTO-LUBE® 411A

Formerly called AbsoLube 411A

CHRISTO-LUBE® 411A is synthetic grease made from polyfluoropolyether (PFPE) fluid thickened with polytetrafluoroethylene (PTFE) polymer. This grease has excellent low temperature properties and is inert to oxygen and other aggressive chemicals. The PFPE fluid has extremely low surface tension and this gives CHRISTO-LUBE® 411A the ability to work in applications where other lubricants fail due to lubricant starvation. The fully fluorinated chemistry is completely compatible with a vast majority of plastics and elastomers.

BASE OIL CHARACTERISTICS			TYPICAL VALUE *
Type			PFPE
Temperature Service Range (°C)			-60 to 200
Flash Point (°C) (ASTM D92)			None
GREASE CHARACTERISTICS			**TYPICAL VALUE ***
Thickener			PTFE
Color			White
Appearance			Smooth
NLGI Grade			2
Penetration (ASTM D217 / DIN 51804-T1)	Unworked		250 min.
	Worked	60X	265-295
		10,000X	261
		100,000X	249
Dropping Point (°C) (ASTM D2265 / DIN ISO 2176)			>260
Oil Separation (ASTM D6184)	24h at 150°C		10% max.
Oil Separation (ASTM D1742)	24h at 25°C and 1.72 kPa		1.9%
Evaporation (CTM-1)	24h at 150°C		3% max.
Water Washout (ASTM D1264 / DIN 51807-T2)	60 min at 79°C		0.14%
Copper Corrosion (ASTM D130 / DIN 51811)	24h at 100°C		1b
Apparent Viscosity (Brookfield Viscometer T-C spindle, 1 rpm)	-40°C		2,260,000 cP
Four Ball Wear (ASTM D2266 / DIN 51350-T5)	60 min 1200 RPM 75°C 40kg_f		0.78mm
Specific Gravity (CTM-2)	25°C		1.96
Oxidation Stability (ASTM D942 / DIN 51808)	168h at 100°C		0 kPa
Low Temperature Torque (ASTM D1478)	-40°C	Start	449 g·cm
		Run 10 min	332 g·cm
		Run 60 min	319 g·cm

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