

BioLube Thread / Joint Compound (TJC)

Product Name: BioLube TJC

Project Goal: environmentally friendly thread lubricant

Primary Researcher:

ASTM Method	Test	Specification Requirements	Lab Results
	Formula Number		SL374 / LS1120-2
	Batch Number		S-65-11
	Comments		MA b1 p114
D217	Penetration, unworked		274
D217	Penetration, worked 60 strokes	API Modified: 310-340, +/-15 difference 5A3: 265 - 385	268
	Color		beige/white
	Texture		tacky-viscous
D2265	Dropping point, minimum (°C/°F)	280 F min	536 F
D445	Viscosity @ 40°C, cSt		38,9
D445	Viscosity @ 100°C, cSt		8,4
D2270	Viscosity Index		201
D92	Flash Point - °C		170°C
D92	Fire Point - °C		
D1743	Rust	< 1	Pass
D2596	4 Ball Weld, kg		620
D2596	Average scar below weld (mm)		1,58
D2266	4 ball wear average scar (mm)		1,035
D6184	Cone bleed (Volume % loss)	10 (N.B. volumetric, Annex E, 24 h at 100°C)	0,17%
D6184	Cone bleed (Volume % loss)	5 (N.B. volumetric, Annex E, 24 h at 66°C)	0,0059%
D4048	Copper corrosion	1B or better (rec)	1a
	Evaporation, per ISO 13678, Annex D	2% Max	0,40%
	Gas evolution, per ISO 13678, Annex G	20 cm3 max	1,5
	Mass Density, % variance	+/- 5	
	Water leaching, per ISO 13678, Annex H	5 % loss	0,27
	Application & Adherence, per ISO 13678, Annex F	applies at -18°C	yes
	Brushing ability	applies at -7°C	yes
	Penetration after 12 mos. storage (ASTM D217)	+/- 30 pts	- 18 pts (256 unworked)
	Cone Bleed after 12 mos. storage (ASTM D6184)	10 % max	0,03%
	Penetration after cooling to -18°C (Annex C)	>= 200	222
	Recommended		
	Worked penetration at -7°C, per ISO 13678, Annex C	report typical	223
	Adherence, per ISO 13678, Annex F	25%	0%
	Compound Stability, field service, Annex M	25%	0,05%