

Infineum D1212

Description

Infineum D1212 is a DI package optimised to formulate API CF1 with high TBN2 for mono-grade and multi-grade lubricants using appropriate Group I basestocks. Infineum D1212 can be rationalised to API CD, CC, CB and CA performance levels and combines with Infineum D1222 to provide a cascade system offering mixed gasoline and diesel performance levels, from API CF1/SF to API SB/CA. Guidelines are given below.

Performance

Performance Level:	SAE Viscosity Grade:	Mass %:	TBN, nominal:
API CF	15W-40, 20W-40, 20W-50, 10W, 20W, 30, 40, 50	5.0	11.0
API CF Allison C4	20W, 30, 40, 50	4.73	-
API CF Allison C4	20W, 30, 40, 50	5.0	-
API CD	15W-40, 20W-40, 20W-50, 20W, 10W, 30, 40, 50	4.0	8.8
API CC	20W, 30, 40, 50	2.8	6.0
API CB	20W, 30, 40, 50	2.3	5.0
API CA	20W, 30, 40, 50	2.1	5.0
API SF/CF MB-Approval 227.1 ACEA E1-96 Allison C4	15W-40, 20W-40, 25W-50	2.5 + Infineum D1222 at 4.2 %	-
API SF/CF MB-Approval 227.0 ACEA E1-96 Allison C4	20W, 10W, 30, 40, 50	2.5 + Infineum D1222 at 4.2 %	-
API SF/CF	15W-40, 20W-40, 20W-50, 20W, 10W, 30, 40, 50	2.4 + Infineum D1222 at 3.4 %	-
API SF/SE/CD MAN 270	15W-40, 20W-40, 20W-50, 10W, 20W, 30, 40, 50	1.3 + Infineum D1222 at 3.4 %	-
API SF/SE/CC	10W-30, 10W	0.0 + Infineum D1222 at 4.9 %	-
API SF/SE/CC	15W-40, 20W-40, 20W-50, 20W, 30, 40, 50	0.0 + Infineum D1222 at 4.1 %	-
API SD/CC	20W, 30, 40, 50	0.8 + Infineum D1222 at 2.2 %	-
API SC/CC	15W-40, 20W-40, 20W-50	1.1 + Infineum D1222 at 1.7 %	-
API SC/CC	20W, 30, 40, 50	1.2 + Infineum D1222 at 1.5 %	-
API SB/CB	20W, 30, 40, 50	0.6 + Infineum D1222 at 1.1 %	-
API SB/CA	20W, 30, 40, 50	0.0 + Infineum D1222 at 1.3 %	-

1) API CF data is fully licensable in selected Group I stocks.

2) TBN can be raised to 13 mg KOH/g via up-treats or using Infineum C9340 as TBN booster.

Typical Inspections

Property:	Value ^(a) :	Unit:	Method ^(b) :
Appearance	Brown Viscous Liquid		Visual inspection
Base Number	221	mg KOH/g	ASTM D2896
Boron	0.05	%(m)	ASTM D5185
Density @ 15 C, kg/m3	1030	kg/m3	ASTM D4052

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Flash Point Deg C	110 Minimum	°C	ASTM D93
Kinematic Viscosity @ 100 C	73	cSt	ASTM D445
Kinematic Viscosity @ 40 C	1122	cSt	ASTM D445
Magnesium	4.83	%(m)	ASTM D5185
Mineral Oil	47	%(m)	Calculated
Nitrogen	0.42	%(m)	ASTM D5291
Phosphorus	1.15	%(m)	ASTM D4927
Sulfated Ash	26.0	%(m)	Calculated
Zinc	1.26	%(m)	ASTM D4927

(a)Not a specification, (b)Methods typically used by Infineum manufacturing plants

Handling / Precautions

Follow precautions normally taken for handling lube oil stocks. This product is temperature sensitive. Do not heat over the maximum loading / unloading temperature to avoid possible release of extremely odorous alkyl mercaptans and/or toxic hydrogen sulfide.

Localized high temperatures should be avoided during heating, especially when product cannot be agitated. Electrical, steam or hot oil heating systems with a self limiting maximum temperature not exceeding 120 Deg. C/250 Deg. F (e.g. low pressure steam at 2 bar(g) or 30 psig) are recommended.

It is strongly recommended that for long term storage the temperature should not exceed 50 °C.

Min Load/Unload Temp: 40 °C (104 °F)
Max Load/Unload Temp: 50 °C (122 °F)
Vis @ Min Load/Unload Temp: 1,120 cSt
Vis @ Max Load/Unload Temp: 620 cSt
Maximum Storage Temperature: 45 °C (113 °F)
Do not reheat above: 50 °C (122 °F)

For detailed data please refer to the relevant MSDS.

Further Information

For further information please contact your local Infineum affiliate or representative.

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