Smooth Fluid 02 (SF-02)
Smooth Fluid 05 (SF-05)

High Performance Drilling Fluids

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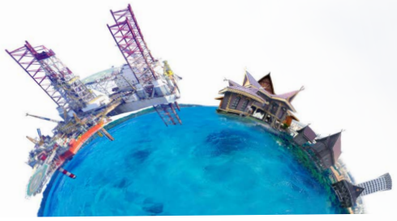


SF-02

High Performance Drilling Fluids

One of the hydrocarbon oil fraction that used as main component of Oil Base Mud with special characteristic as Higher flash point, lower pour point and environmentally friendly

Produced from Pertamina Refinery Unit II Dumai with production capacity 482.000 barrel per year.

Product excellence:
- Stable and non-oxidized in down hole operating condition
- Safe for working equipment
- Safe for aquatic environment
- Non irritating agent, biodegradable
- Thermal stability
- Prevent blow out failures
- Good lubricity
- Good for HP HT drilling
- Stable for long storage
- Competitive price
- Compatible for deep water drilling

Product quality:
- High density
- Moderate viscosity
- Low aromatic
- Low sulphur

“Smooth Fluid 02” (SF-02)

Specification

Properties	Metode	Unit	Specification
SG at 60°F	ASTM D – 1298	-	**0.765 – 0.800**
Flash Point PMCC	ASTM D – 93	^{0}C	85 min
Viscocity at 40 ^{0} C	ASTM D 445	cSt	2.5 – 3.0
Aromatic	UV Vis	ppm-wt	200 max
IBP	ASTM-D86	^{0}C	**195 min**
FBP	ASTM-D86	^{0}C	**340 max**
Pour Point	ASTM D-97	^{0}C	**– 33 max**
Aniline Point	ASTM D-611	^{0}C	**85 min**
Color Saybolt	ASTM D 156		**+25 min**
Copper Strip	ASTM-D130		No.1
Sulfur	ASTM-D2622	ppm	**20 max**

The specification above is valid when printed, for actual specification please contact Pertamina

SF-05

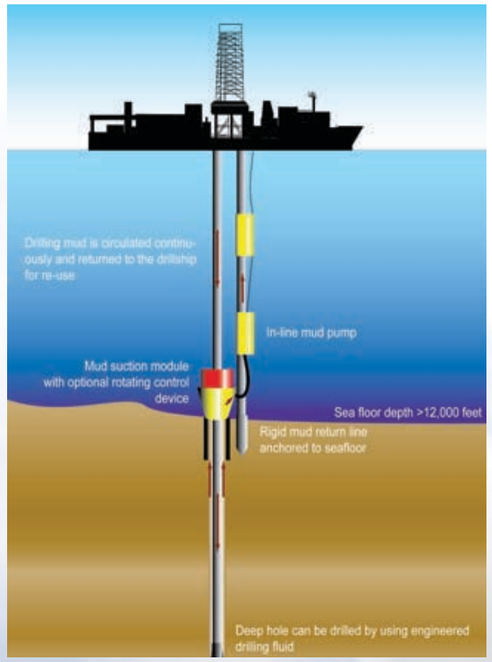
High Performance Drilling Fluids

Smooth Fluid 05 (SF-05)
SF-05 is a drilling base fluid derived from oil fraction, as main component of Oil Base Mud, which has special characteristics, excellent performance and environmentally-friendly as well.
Production capacity around 1,2 million barrel per year which produced by Refinery Unit V Balikpapan. SF-05 has been successfully applied in Indonesia's drilling sites.

A. Special Characteristics
- High local content
- Non-corrosive and compatible with drilling equipments such as gaskets and seals
- Has good stability and not easily oxidized at any operating condition
- Has good safety on working equipments
- Has good safety on swamp area
- Has good stability on long-term inventory

B. Excellent Performance
- Has good thermal stability
- Suitable for high-temperature and high-pressure drilling
- Has good lubricity
- Minimize the risk of blow-out failures

C. Environmentally-friendly
- Certified as biodegradable product
- Non-irritating agent
- Low aromatic
- Low sulfur



Smooth Fluid 05 (SF-05)

Specification

PROPERTIES	METHOD	UNIT	TYPICAL SPEC
SG at 60°F	ASTM D 1298	g/cm^3	0.800 – 0.835
Flash Point PMCC	ASTM D 93	^{0}C	Min. 75
Aromatic (BTX)	Gas Chromatography	% Mass	Max. 0.05
Viscosity at 40^{0}C	ASTM D 445	Cst	2.5 – 3.5
Distillation (IBP)	ASTM D 86	^{0}C	Min. 175
Pour Point	ASTM D 97	^{0}C	Max. 3
Aniline Point	ASTM D 611	^{0}C	Min. 80
Color ASTM	ASTM D 1500	-	Max. 1.5
Copper Strip	ASTM D 130	-	Max. No. 1
Sulfur	ASTM D 2622	Ppm	Max. 40
Appearance	Visual		Thin Yellow

Nature of Toxicity and Environmentally Friendly

PROPERTIES	METHOD	RESULTS
Toxicity Test	US – EPA	Non-Toxic
Biodegradability Test	OECD – 306	Ready Biodegradagable
Skin Irritation	OECD – 404	Non Irritation Material
Eye Irritation	OECD – 405	Non Irritation Material
BTX Content	Gas Chromatography	Traces

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