

# PLANETELF PAG



Lubrication



Synthetic PAG type lubricant for car air conditioning

## APPLICATIONS

**Car air conditioning compressor**

- Polyalkylene glycol lubricant, PAG, specially formulated for car air conditioning compressors using R134a as refrigerant.
- **PLANETELF PAG 244 F** is a low viscosity PAG oil for variable displacement compressors, where SANDEN SP 10 is recommended.
- **PLANETELF PAG 488** is a high viscosity PAG oil for fixed displacement compressors.
- **PLANETELF PAG SP 20** is a high viscosity PAG oil for fixed displacement compressors, where SANDEN SP 20 is recommended.

## SPECIFICATIONS

O.E.M.'s

- **PLANETELF PAG 488** is approved by GENERAL MOTORS (DELPHI GM HARRISSON) under the GM Material Specification n° 9985752.
- **PLANETELF PAG 244 F** is equivalent to SANDEN SP 10.
- **PLANETELF SP 20** is equivalent to SANDEN SP 20.

## ADVANTAGES

**Customer satisfaction guarantee**

- **PLANETELF PAG** have good compatibility behaviour and miscibility with R134a refrigerant allowing optimal cooling of the air conditioning system, and compressor safety under heavy duty use.
- The 250cc cans are filled under nitrogen blanket guaranteeing a water content less than 0,05 %. Water (humidity in air) in the air conditioning system may cause severe damages in hoses and to the relief valve.

## HANDLING

- Due to the high hygroscopic nature of PAG oils, their exposure to air must be minimized so as to avoid water absorption (store in a dry place, away from humidity, reduce handling time with the packaging open, avoid storing packaging when open)
- It is recommended to avoid contact with painted surfaces or plastics. In the event of contact, wash the surface with soap and water.

TYPICAL CHARACTERISTICS	METHODS	UNITS	PLANETELF PAG		
			244 F	488	SP 20
Color			Clear, colourless liquid	Blue	Pale yellow
Density at 20°C	ISO 3675		0.9954	1.05	1.03
Viscosity at 40°C	ISO 3104	mm <sup>2</sup> /s	46	130	100
Viscosity at 100°C	ISO 3104	mm <sup>2</sup> /s	9.0	26	20
Pour point	ISO 3016	°C	- 51	- 44	- 46
Flash point COC	ISO 2592	°C	212	212	204
Water content	Karl Fisher	ppm	1000 max	1000 max	1000 max

Above characteristics are mean values given as an information.

TOTAL LUBRIFIANTS  
INDUSTRIE

08-12-2015 (supersedes 23-01-2014)

PLANETELF PAG

1/1



This lubricant used as recommended and for the application for which it has been designed does not present any particular risk.

A material safety data sheet conforming to the regulations in use in the E.C. can be obtained from your local commercial adviser or down loaded from [www.quick-fds.com](http://www.quick-fds.com).