

# AGIP BETULA



The AGIP BETULA series are superior quality lubricants formulated from special naphthenic base oils appropriately refined to impart a low pour point, a low flock point and high resistance to oxidation and carbon deposit formation, all properties essential for correct lubrication of refrigeration compressors.

## CHARACTERISTICS (TYPICAL FIGURES)

AGIP BETULA		32	46	68
Viscosity at 40°C	mm <sup>2</sup> /s	29,1	43	61,3
Viscosity at 100°C	mm <sup>2</sup> /s	4,4	5,3	6,8
Viscosity Index	-	18	30	43
Flash Point COC	°C	180	185	202
Pour Point	°C	-40	-40	-37
Flock Point	°C	-56	-54	-51
Mass density at 15°C	kg/l	0,889	0,894	0,898

## PROPERTIES AND PERFORMANCE

AGIP BETULA products have the following properties which guarantee trouble-free operation of hermetic refrigeration compressors in which they are used:

- high chemical and thermal stability which reduces possibility of reaction with the refrigerant and the materials -metals and seals- used to make the compressors, as demonstrated by good results in the Philipp test;
- oxidation resistance which ensures long service life, combined with negligible tendency to form carbon residues on the hot surfaces of compressor valves;
- low pour points to prevent the oil from solidifying in the cold parts of the refrigeration plant;
- low flock points to avoid separation of wax-like deposits in the cold parts of the system;
- high dielectric strength to avoid difficulties in those compressors where the lubricant comes into contact with the windings of electric motors.

## APPLICATIONS

AGIP BETULA oils are intended for lubrication of refrigeration compressors (reciprocating and vane) of the hermetic domestic type, of industrial units or of heat pump systems using all types of refrigerant (ammonia, Freon 12, Freon 22 etc.; except those using SO<sub>2</sub>).

## SPECIFICATIONS

AGIP BETULA products meet the test requirements of the following specifications:

- DIN 51303 KA
- DIN 51503 KC
- MM-O-2008 type II (NATO O-283)
- MM-O-2008 type IV (NATO O-290)
- SABROE (0170-104-EN - M group)
- ZANUSSI