

VALCO E-PROTECT 4.12

Synthetic engine oil 0W30

Top of the range synthetic engine oil providing protection against wear, longevity of exhaust gas after-treatment systems ("Low-SAPS" technology) and fuel economy.

VALCO E-PROTECT 4.12 is specially dedicated for BMW vehicles for which BMW LL-12 FE specification is recommended. It is also suitable when ACEA C2 level is required.

Specifications

- ✓ ACEA C2
- ✓ API SP
- ✓ BMW LL-12 FE

Physicochemical Characteristics

Characteristics	Method	Unit	Typical value	Min.	Max.
Viscosity grade	SAE J300	-	0W30	-	-
Kinematic viscosity @ 100°C	ASTM D 7042	cSt	9.6	9.5	12.5
Kinematic viscosity @ 40°C	ASTM D 7042	cSt	48	-	-
Viscosity index	ASTM D 2270	-	190	-	-
CCS viscosity @ -35°C	ASTM D 5293	mPa.s	5800	-	6200
HTHS viscosity @ 150°C	ASTM D 4683	mPa.s	3.0	2.9	-
MRV viscosity @ -40°C	ASTM D 4684	mPa.s	31000	-	60000
Density @ 20°C	ASTM D 7042	-	0.842	-	-
Pour point	ASTM D 97	°C	-48	-	-42
T.B.N.	ASTM D 2896	Mg KOH/g	9.4	8.6	9.7
Spectrometric analysis	ICP	ppm			
Phosphorus			770	700	800
Zinc			850	700	1000
Calcium			1100	950	1250
Magnesium			600	500	700
Sulfur			2000	-	3000
NOACK volatility	ASTM D 5800	% mass	11.8	-	13.0
Colour	ASTM D 1500	-	2.0	-	3.0

Security

See Safety Data Sheet