

VALCO T-PROTECT 7.0**Synthetic engine oil 10W-40 E4, E7, E8, E11 HD**

Synthetic engine oil dedicated to heavy-duty engines and public works appliances designed to meet "EURO VI" emissions requirements.

It will provide excellent protection against wear and maintain optimal engine cleanliness.

Its additivation with low content of sulfated ash, phosphorus and sulfur ("Low-SAPS" technology) will guarantee longevity of exhaust gas post-treatment systems.

VALCO T-PROTECT 7.0 has been specially designed to meet requirements of many manufacturers (see performance level below).

It will also be suitable for vehicles for which ACEA E4, E7, E8, E11 or API CK-4 level is recommended.

Specifications

- ✓ ACEA E4, E7, E8, E11
- ✓ API CK-4
- ✓ Daimler DTFR 15C120 (MB228.52)
- ✓ Daimler DTFR 15C110 (MB228.51)
- ✓ Daimler DTFR 15C100 (MB228.31)
- ✓ MAN M3271-1, M3477, M3775
- ✓ MTU Type 3.1, Type 2.1
- ✓ Deutz DQC IV-18 LA
- ✓ Volvo VDS-4.5
- ✓ Renault RLD-3
- ✓ Scania LA
- ✓ Mack EOS-4.5
- ✓ Caterpillar ECF-3
- ✓ Cummins CES 20086, 20081
- ✓ Detroit Diesel 93K222
- ✓ JASO DH-2 (2017)

Physicochemical Characteristics

Characteristics	Method	Unit	Typical value	Min.	Max.
Viscosity grade	SAE J300	-	10W-40	-	-
Kinematic viscosity @ 100°C	ASTM D 7042	cSt	13.2	13.0	16.3
Kinematic viscosity @ 40°C	ASTM D 7042	cSt	86	-	-
Viscosity index	ASTM D 2270	-	153	-	-
CCS viscosity @ -°C	ASTM D 5293	mPa.s	5700	-	7000
HTHS viscosity @ 150°C	ASTM D 4683	mPa.s	3.9	3.5	-
MRV viscosity @ -°C	ASTM D 4684	mPa.s	21000	-	60000
Density @ 20°C	ASTM D 7042	-	0.856	-	-
Pour point	ASTM D 97	°C	-34	-	-30
Flash point	ASTM D 92	°C	233	215	-
T.B.N.	ASTM D 2896	mg KOH/g	13.0	12.5	13.4
Sulfated ash	ASTM D 874	% mass	0.9	-	1.0
Spectrometric analysis	ICP	ppm			
Phosphorus			770	-	800
Zinc			850	350	-
Calcium			1250	-	-
Magnesium			870	-	-
Sulfur			2300	-	3000
NOACK volatility	ASTM D 5800	% mass	9.1	-	11.0
Colour	ASTM D 1500	-	2.5	-	4.0

Security

See Safety Data Sheet