

VALCO T-PROTECT 4.0**Engine oil 10W-30 E7, E11 HD**

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 4.0 has been specially designed to meet requirements of many manufacturers (see performance level below).

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

Specifications

- ✓ ACEA E7, E11
- ✓ API CK-4
- ✓ JASO DH-2
- ✓ Daimler DTFR 15C100 (MB228.31)
- ✓ MAN M3775, M3575
- ✓ MTU Type 2.1
- ✓ Volvo VDS-4.5
- ✓ Mack EOS-4.5
- ✓ Renault RLD-3
- ✓ Cummins CES 20086
- ✓ Caterpillar ECF-3
- ✓ Deutz DQC III-18 LA
- ✓ Detroit Diesel DFS 93k222
- ✓ Ford WSS-M2C171-F1

Physicochemical Characteristics

Characteristics	Method	Unit	Typical value	Min.	Max.
Viscosity grade	SAE J300	-	10W-30	-	-
Kinematic viscosity @ 100°C	ASTM D 7042	cSt	12.3	11.9	12.5
Kinematic viscosity @ 40°C	ASTM D 7042	cSt	83	-	-
Viscosity index	ASTM D 2270	-	143	-	-
CCS viscosity @ -25°C	ASTM D 5293	mPa.s	5700	-	7000
HTHS viscosity @ 150°C	ASTM D 4683	mPa.s	3.6	3.5	-
MRV viscosity @ -30°C	ASTM D 4684	mPa.s	22450	-	60000
Density @ 20°C	ASTM D 7042	-	0.862	-	-
Pour point	ASTM D 97	°C	-45	-	-27
Flash point	ASTM D 92	°C	233	215	-
T.B.N.	ASTM D 2896	mg KOH/g	9.7	9.1	10.1
Sulfated ash	ASTM D 874	% mass	0.99	-	1.0
Spectrometric analysis	ICP	ppm			
Phosphorus			1000	-	1200
Zinc			1100	350	-
Calcium			2400	-	-
Sulfur			3340	-	4000
NOACK volatility	ASTM D 5800	% mass	10.4	-	13.0
Colour	ASTM D 1500	-	3.0	-	5.0

Security

See Safety Data Sheet