

VALCO PL-PROTECT 9.5

Engine oil 20W-50 CI-4 HD

Engine oil for heavy duty vehicles and public works appliances.

Its formulation has been studied to offer optimal anti-wear properties and detergency to keep engine cleanliness and ensure its longevity.

VALCO PL-PROTECT 9.5 is particularly suitable when ACEA E7 or API CI-4 performance level is recommended.

Specifications

- ✓ ACEA E7
- ✓ API CI-4
- ✓ API SL
- ✓ Caterpillar ECF-1A
- ✓ Daimler DTFR 15B110 (MB 228.3)
- ✓ MAN M3275

Physicochemical Characteristics

Characteristics	Method	Unit	Typical value	Min.	Max.
Viscosity grade	SAE J300	-	20W-50	-	-
Kinematic viscosity @ 100°C	ASTM D 7042	cSt	18.3	17.4	21.9
Kinematic viscosity @ 40°C	ASTM D 7042	cSt	153	-	-
Viscosity index	ASTM D 2270	-	134	-	-
CCS viscosity @ -15°C	ASTM D 5293	mPa.s	5400	-	9500
HTHS viscosity @ 150°C	ASTM D 4683	mPa.s	4.9	3.7	-
MRV viscosity @ -20°C	ASTM D 4684	mPa.s	19700	-	60000
Density @ 20°C	ASTM D 7042	-	0.868	-	-
Pour point	ASTM D 97	°C	-34	-	-27
T.B.N.	ASTM D 2896	mg KOH/g	11.1	10.1	12.1
Sulfated ash	ASTM D 874	% mass	1.4	1.0	2.0
Spectrometric analysis	ICP	ppm			
Phosphorus			1000	-	-
Zinc			1100	800	-
Calcium			3600	-	-
NOACK volatility	ASTM D 5800	% mass	6.5	-	10.0
Colour	ASTM D 1500	-	3.5	-	5.0

Security

See Safety Data Sheet