

BMW Long Life specification overview

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BMW Specifications	LL-01	LL-01 FE	LL-04	LL-12 FE	LL-14 FE+	LL-17 FE+
Application	Minimum level for Gasoline from MY2002 Minimum level for non-DPF Diesels from MY2003 OK for older engines Not allowed for M engines in general, only for new S55- and S63-M-engines	All Gasoline engines from MY 2005 OK for older Gasoline engines with Valvetronic Not allowed for Diesel Engines Not allowed for M engines in general, only for new S55- and S63-M-engines	Mandatory for DPF Diesels OK for non-DPF Diesels OK for gasoline from MY 2002 <u>in Europe only</u> Not allowed for M engines in general, only for new S55- and S63-M-engines	Standard BMW Diesels from MY 2013 onwards. (Not backward compatible) NOT allowed for high power Diesels. Check manual for details. (Rule of thumb: Multiple turbos) OK for gasoline from MY 2002 <u>in Europe only</u> Not allowed for M engines in general, only for new S55- and S63-M-engines	ONLY for EU und USA! Allowed for Gasoline from MY 2013 with N20 and "Baukasten" engines NOT allowed for other engines Not allowed for M engines in general, only for new S55- and S63-M-engines	Backward compatible with LL-14 FE+ ONLY for EU, NAFTA, China Mandatory for engines with Gasoline Particulate Filters (GPF's) OK for Gasoline from MY 2013 with N20 and "Baukasten" engines NOT allowed for other engines Not allowed for M engines in general, only for new S55- and S63-M-engines
ACEA basis	A3/B4 ⁻¹⁶	A5/B5 ⁻¹⁶	C3 ⁻¹⁶ excl. P limit	C2 ⁻¹⁶	C5 ⁻¹⁶ excl. S. Ash limit	C5 ⁻¹⁶
SAE Viscosity grade	0/5W-30/40	xW-30	0/5W-30/40	xW-30	xW-20	xW-20
HTHS viscosity (CEC L-036-90), mPa.s, min.	3.5	3.0	3.5	2.9	2.6	2.6
Kin. Viscosity at 100°C , mm²/s	SAE J300	≥ 10.0	SAE J300	≥ 8.8	≥ 7.8 & < 9.3	≥ 7.8 & < 9.3
Noack (ASTM D5800), %	ACEA	ACEA	ACEA	ACEA	ACEA	ACEA
TBN (ASTM D2896), mg KOH/g, min.	10.0	10.0	6.0	6.0	9.5	6.0
Sulfated ash (ASTM D874), % m/m	≥ 1.0 & ≤ 1.6	≤ 1.6	≤ 0.8	≤ 0.8	≤ 1.3	≤ 0.8
Pour Point (ASTM D97) °C, max.	-42 for 0W-xx, TBD for 5W-xx	-42 for 0W-xx, TBD for 5W-xx	-42 for 0W-xx, TBD for 5W-xx	-42 for 0W-xx, TBD for 5W-xx	-42	-42