HYDRAULAN® 406 ESI

BASF has a longstanding history of setting and pushing the benchmarks of premium vehicle safety: Already back in 1952, BASF patented and marketed its first premium brake fluid under the brand name HYDRAULAN® for automotive applications. Continuing to build on this long-established close partnerships with the automotive industry, BASF's latest innovation HYDRAULAN® 406 ESI sets new performance parameters for a premium brake fluid.

HYDRAULAN® 406 ESI is a next-generation high-performance brake fluid that meets and exceeds the very demanding industry standards and international requirements for low-viscosity brake fluids. Due to its very low viscosity at –40°C (viscosity more than 50 % lower than standard products), braking safety is improved significantly even in the most difficult conditions.

Additionally, HYDRAULAN® 406 ESI has been formulated to provide superior lubrication. This ensures the long-term integrity of the brake system's sealants and elastomers and therefore, extends the durability of the whole brake system. HYDRAULAN® 406 ESI also complies with latest brake system technologies such as electro-hydraulic brakes and latest brake fluid standards (no noise, no wear).

HYDRAULAN® 406 ESI is highly suitable for all levels of autonomous driving and comes as BASF's response to further elevate the safety of vehicles in the future.

This innovation is also available as HYDRAULAN® 406 ESI BMB solution, where fossil raw materials are replaced by renewable raw materials at the beginning of the value chain according to a mass balance approach. This claim is certified by REDcert², a provider of certification systems and audited by TÜV Nord. As a result of using renewable instead of fossil raw materials, CO_2 emissions are significantly reduced when producing HYDRAULAN® 406 ESI BMB.

Benefits:

- Elevates the benchmarks for a **superior brake safety performance** through high wet and dry boiling points, maximized lubricity and very low viscosity
- Achieves superior **brake safety performance** through outstanding brake response
- Achieves **long-lasting brake safety** through minimized sealant and elastomer wear
- Ensures a **very low viscosity** even at low temperatures
- **Protection of overall brake system** through excellent corrosion protection for metals and good lubricity for low wear during operations
- Secures **freedom to operate** through full regulatory compliance, e.g., REACH
- **Reduced CO_2 emissions** when applying BMB version

HYDRAULAN®

BASF
We create chemistry

HYDRAULAN® 406 ESI exceeds the requirements set by the international standards in all criteria:

Product	International standard	Dry ERBP [°C]	Wet ERBP [°C]	Viscosity at –40°C [mm²/s]
HYDRAULAN® 406 ESI		≥ 265	≥ 180	≤ 700
	FMVSS No. 116 DOT 4	≥ 230	≥ 155	≤ 1.800
	SAE J 1704 Low Viscosity	≥ 250	≥ 165	≤ 750
	ISO 4925 Class 7	≥ 260	≥ 180	≤ 750
	JIS K 2233 Class 6	≥ 250	≥ 165	≤ 750

HYDRAULAN® 406 ESI is officially approved by leading automobile manufacturers:

Product	Automobile manufacturers (OEM)	Approval code
HYDRAULAN® 406 ESI	Mercedes-Benz Cars	MB 331.0
	Daimler Trucks & Buses	DFTR 30B100
	Robert Bosch GmbH	N28 BS302
	Volvo Cars	TR 33413395-002
	Polestar	OEM does not issue an approval code

Packaging information:

HYDRAULAN® 406 ESI is globally available as bulk delivery and in small packaging. Size of packaging and offerings may differ per region.

Safety doesn't happen by accident.
Learn more on our website
www.basf.com/hydraulan

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