

Technical Information

Sealant for hydraulic and pneumatic systems, type HF 305-42

(For threaded joints, hydraulic and pneumatic systems, cooler and compressed air systems)

Pipe and flange sealing, medium strength type HF 305-72

(For pipe and flange sealing)



The advantageous solution for construction, production and attendance

- *one-component*
- *fast curing*
- *ready-to-use*
- *solvent-free*
- *non-shrinking*
- *vibration-proof*

HANSA-FLEX HF 305-42 and HF 305-72 are high quality anaerobic sealants on the basis of special methacrylate resins, especially made for economical thread-locking and sealing of threaded and flange connections.

After curing, a shock- and vibration-resistant joint is provided with excellent resistance to chemicals and solvents. The excellent seal effect gives protection against leakage and fretting corrosion.

HANSA-FLEX HF 305-42 and HF 305-72 have especially been formulated to prevent the escape of gaseous and liquid substances. They seal up to burst point and resist almost all substances used in industry. The use of HANSA-FLEX adhesives and sealants prevent clogging and contamination of important fittings as well as the blockage of hydraulic and pneumatic valves as may occur with conventional sealing methods (e.g. hemp or Teflon tape). Connections sealed with HANSA-FLEX adhesives and sealants are protected against seizing and fretting corrosion. Both medium strength grades allow dismantling even after years.

After curing HANSA-FLEX adhesives and sealants do not affect curable plastics and accordingly thermoplastic like e.g. NBR, FPM, EPDM and Silicone rubber. In an uncured state, O-rings might theoretically, in individual cases, swell up the surface. Because of the short curing time, there is no impact on thread-locking and sealing of threaded and flange connections and can therefore be practically neglected.

Special characteristics and advantages

HANSA-FLEX adhesives and sealants are simple, easy to use and very economical. Handling strength is reached within a few minutes and final strength within a few hours at room temperature. Metering and mixing is not necessary, there is no pot life to be respected and product wastage is minimised.

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Range of products and specifications

Article	HF 305-42	HF 305-72
Application	Sealant for hydraulic and pneumatic systems, medium strength, medium viscosity, disassembly with normal tools	Pipe and flange sealing (with PTFE), medium strength, high viscosity, disassembly with normal tools
Colour	brown	white
For threaded joints up to	M 20 / R3/4"	M80 / R3"
Viscosity at +25° C (in mPa.s Brookfield)	500 nt***	17.000-50.000 ht***
Gap filling capacity max.	0,15mm	0,40mm
Breakaway strength Nm (Thread*)	12-15	10-14
Prevailing strength Nm (Thread*)	18-22	2-4
Shearstrength** Nmm2 (DIN 54452)	8-12	4-6
Handling strength at room temp	10 - 20 min	20 - 40 min
Final strength at room temperature	2 - 4 h	5 - 10 h
Temperature resistance	-60° C bis + 150°C	

* = Strength values based on M 10 screws, 8.8 grade, thickness of nut 0,8d

**= Static shear strength based on cylindrical parts of abt. Ø 13 mm, tolerance (D-d) = 0,05 mmm, l/d = 0,88

***= nt= low thixotrope; ht= high thixotrope

Pretreatment of Surface

For achieving the best possible result, parts that will be assembled are supposed to be degreased and cleaned (e.g. HANSA-FLEX Cleaner S). If required, the parts should be slightly roughened. HANSA-FLEX sealants and adhesives can also be used on unclean surfaces. In general, best results will be achieved on cleaned and degreased surfaces.

Application

HANSA-FLEX sealants and adhesives are ready for use and should be applied evenly directly from the bottle with the dispensing tip (avoid direct contact of dispensing tip with metal). On screws and bolts, apply HANSA-FLEX Sealants and Adhesives around the thread. Do not pour back into the bottle any HANSA-FLEX Sealants and Adhesives which had contact with metal; even smallest metal particles will cause the content of the bottle to cure.

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Curing

HANSA-FLEX Sealants and Adhesives remain liquid as long as in contact with air. The cure starts when HANSA-FLEX sealants and adhesives, between the interfaces, come into contact with metal under the absence of air. The cure time depends on the selected type, the ambient temperature and the material.

Dismantling

Connections of medium strength can easily be disassembled with ordinary tools. Cured residues can be removed mechanically.

Storage

HANSA-FLEX sealants and adhesives can be stored in the unopened original container for at least 24 month at room temperature. Keep away from heat sources and direct sunlight. The air in the bottle keeps HANSA-FLEX sealants and adhesives liquid. Already opened, proper handled bottles can still be used over several months without any problems.

Safety precautions

HANSA-FLEX adhesives and sealants generally do not cause allergic reactions of the skin. However, the bottle contains an insignificant amount of irritant substances which may cause sensitization in isolated cases when skin is continuously in contact with the adhesives and sealants. Therefore, extensive and direct contact with the skin should be avoided. See further details on the bottle and in the Material Safety Data Sheets which are available on www.hansa-flex.com.

Additional Details

We do not recommend HANSA-FLEX adhesives and sealants for long-term use on connections of copper and its alloys if exposed to water of more than +40°C.