



AFM 38

AFM 38

Technical Data Sheet 338 (previously TDS 278)

Edition: 08/2015, supersedes all prior editions.

Please see the latest issue at www.reinz-industrial.com

| | |
|--------------------|---|
| Material | AFM 38 is an asbestos- free gasket material. It consists of aramide fibers and other asbestos substitutes that are resistant to high temperatures and are processed with high- grade elastomers under elevated pressure and temperature. |
| Properties | AFM 38 is the most economical gasket material in the AFM range. The material which is resistant to oils and solvents is characterized by its very high compressibility and flexibility as well as outstanding gas sealability. AFM 38 ensures very effective sealing even under low surface pressure. |
| Application | <ul style="list-style-type: none">• for sealed joints that are subjected to low mechanical and thermal stress• for sealing lightweight components with comparatively low surface pressure, e.g. valve covers, oil pans and covers in IC engines• for transmissions, pumps, apparatus, and pipelines in the fittings and sanitary fields.• for sealing engine, transmission, hydraulic and refrigerating oils, fuels, and solvents• for sealing water as well as mixtures of water and antifreeze & corrosion inhibitors |
| Surfaces | As standard, both sides of AFM 38 are coated with a non- stick, high- friction layer that greatly facilitates disassembly. In most cases, additional surface treatment is unnecessary. |
| Approvals | Germanischer Lloyd (DNV GL) Approval for shipbuilding |



AFM 38

Technical Data
(nominal thickness 2.00 mm)

| | | |
|--|--|-----------------|
| Density | g/ cm ³ | 1.5 - 1.7 |
| Ignition loss acc. to DIN 52 911 | % | < 45 |
| Tensile strength acc. to ASTM F 152, across grain acc. to DIN 52910, across grain | N/ mm ² N/ mm ² | > 7 > 5 |
| Residual stress acc. to DIN 52 913 16 h, 175 °C | N/ mm ² | ≈ 20 |
| Compressibility and recovery acc. to ASTM F 36, procedure J compressibility recovery | % % | 15 - 25 > 60 |
| Sealability against nitrogen acc. to DIN 3535, part 6 FA | mg/ (s·m) | < 0.01 |
| Swelling acc. to ASTM F 146 | | |
| in IRM 903 Oil (replaces ASTM Oil No. 3) 5 h, 150 °C | | |
| increase in thickness | % | < 10 |
| increase in weight | % | < 20 |
| in ASTM Fuel B 5 h, room temp. | | |
| increase in thickness | % | < 15 |
| increase in weight | % | < 15 |
| in water / antifreeze (50:50) 5 h, 100 °C | | |
| increase in thickness | % | < 5 |
| increase in weight | % | < 15 |
| Short- term peak temperature | °C | 300 |
| Maximum continuous temperature | °C | 200 |
| Maximum operating pressure | bar | 50 |



Max. continuous temperature and max. pressure must not occur simultaneously, please refer to the table entitled "Max. operating pressures at various temperatures and with various media"

AFM 38

DIN 28091-2:

| | | |
|---|-----------|---------|
| Cold creep ϵ_{KSW} | % | 15 - 25 |
| Cold recovery ϵ_{KRW} | % | 8 - 13 |
| Hot creep during service $\epsilon_{WSW/T}$ | % | 60 - 70 |
| Hot recovery $\epsilon_{WRW/T}$ | % | ≈ 0.8 |
| Recovery R | mm | ≈ 0.015 |
| Specific leakage rate λ | mg/ (s·m) | < 0.1 |
| Residual surface pressure after 1000 h (in air at 100 °C) | % | > 50 |

Sealing parameters see corresponding Table.



The data quoted above are valid for the material "as delivered" without any additional treatment. In view of the countless possible installation and operating conditions, definitive conclusions cannot be drawn for all applications regarding the behaviour in a sealed joint. Therefore, we do not give any warranty for technical data, as they do not represent assured characteristics. If you have any doubt, please contact us and specify the exact operating conditions.

Form of delivery

Gaskets according to a drawing, dimensions supplied, or other arrangement.

Sheets 1500 x 1500 mm (standard size)

Nominal thicknesses and tolerances acc. to DIN 28091-1 (mm)

Dimensional limits within a shipment:

| | |
|-------------|-------|
| 0.30 | ±0.10 |
| 0.50 | ±0.10 |
| 0.75 | ±0.10 |
| 1.00 | ±0.10 |
| 1.50 | ±0.15 |
| 2.00 | ±0.20 |
| 3.00 | ±0.30 |

Max. thickness variation in a sheet:

0.1 mm for sheet thickness ≤ 1.00 mm, and 0.2 mm for thickness > 1.00 mm