

Technical Data Sheet

MATERIAL PROPERTIES*: Reinz AFM-30

Material

AFM 30 is an asbestos-free gasket material. It consists of aramid fibres and other asbestos substitutes that are resistant to high temperatures and are processed with high-grade elastomers under elevated pressure and temperature.

Properties

AFM 30 is conformable and exhibits excellent mechanical/ thermal resistance, as shown by its high value of residual stress. It is ideal for sealing gases and fluids.

Applications

for compressors, pipelines, apparatus, transmissions, gas meters and IC engines
for sealing engine, transmission, hydraulic, and refrigerating oils
for sealing fuels, mixtures of water, antifreeze & corrosion inhibitors
for sealing Freons, alkaline solutions, and solvents

Surfaces As standard both sides of AFM 30 are coated with a non-stick, highfriction layer that greatly facilitates disassembly. In most cases, additional surface treatment is unnecessary.

Approvals

DIN- DVGW acc. to DIN 3535, part 6 FA

VP 401 (HTB) - Gaskets with higher thermal resistance

BAM - German Federal Institute for Materials Research and Testing, flanged joints in oxygen-conducting steel pipes up to 100 bar and 80 °C

Germanischer Lloyd (DNV GL) - Approval for shipbuilding

Technical Data

(nominal thickness 2.00 mm)

| | | |
|----------------|----------------------|------------|
| Density | g/ cm ³ 1 | .75 - 1.95 |
|----------------|----------------------|------------|

| | | |
|---|---|------|
| Ignition loss acc. to DIN 52 911 | % | < 36 |
|---|---|------|

Tensile strength

| | | |
|--------------------------------|--------------------|------|
| acc.to ASTM F 152 across grain | N/ mm ² | > 12 |
|--------------------------------|--------------------|------|

| | | |
|---------------------------------|--------------------|-----|
| acc. to DIN 52 910 across grain | N/ mm ² | > 9 |
|---------------------------------|--------------------|-----|

Residual stress acc. to DIN 52 913

| | | |
|-----------|-----------------------|------|
| 16 h, 300 | °C N/ mm ² | ≈ 25 |
|-----------|-----------------------|------|

| | | |
|-----------|-----------------------|------|
| 16 h, 175 | °C N/ mm ² | ≈ 36 |
|-----------|-----------------------|------|

Compressibility and recovery

Asbestos Free



Certificate Number: 14352
ISO 9001



Care should be taken in selecting the most suitable quality for each application. Advice is available, but final responsibility remains with the customer.

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Asbestos Free

acc. to ASTM F 36, procedure J

| | | |
|------------------------|---|--------|
| compressibility | % | 7 - 15 |
| recovery | % | > 50 |

Sealability against nitrogen

| | | |
|-----------------------------|-----------|--------|
| acc. to DIN 3535, part 6 FA | mg/ (s·m) | ≈ 0.05 |
|-----------------------------|-----------|--------|

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 | % | < 10 |

in ASTM Fuel B

5 h, room temp.

| | | |
|-----------------------|---|------|
| increase in thickness | % | < 10 |
| increase in weight | % | < 10 |

in water / antifreeze (50:50)

5 h, 100 °C

| | | |
|---------------------------|---|-----|
| increase in thickness | % | < 5 |
| increase in weight % < 10 | | |

| | | |
|-------------------------------------|----|-----|
| Short- term peak temperature | °C | 400 |
|-------------------------------------|----|-----|

| | | |
|---------------------------------------|----|-----|
| Maximum continuous temperature | °C | 250 |
|---------------------------------------|----|-----|

| | | |
|-----------------------------------|-----|-----|
| Maximum operating pressure | bar | 125 |
|-----------------------------------|-----|-----|



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".

DIN 28091-2:

| | | |
|------------------------|---|--------|
| Cold creep εKSW | % | 7 - 15 |
|------------------------|---|--------|

| | | |
|---------------------------|---|-------|
| Cold recovery εKRW | % | 4 - 8 |
|---------------------------|---|-------|

| | | |
|---|---|---------|
| Hot creep during service εWSW/ T | % | 11 - 14 |
|---|---|---------|

| | | |
|-----------------------------|---|--------|
| Hot recovery εWRW/ T | % | ≈ 0.65 |
|-----------------------------|---|--------|

| | | |
|-------------------|----|---------|
| Recovery R | mm | ≈ 0.012 |
|-------------------|----|---------|

| | | |
|--------------------------------|-----------|-------|
| Specific leakage rate λ | mg/ (s·m) | < 0.1 |
|--------------------------------|-----------|-------|

| | | |
|---|---|------|
| Residual surface pressure after 1000 h (in air at 100 °C) | % | > 50 |
|---|---|------|



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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

4.00 ±0.40

5.00 ±0.50

Max. thickness variation in a sheet:

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



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