

UKL® 3XA



Typical Specifications

| | |
|----------|-----------------------|
| British | BS 1832 Grade A & O |
| German | DIN 375-4 IT 400 |
| American | ASTM F104-F112 551 M8 |
| French | NFT48001 Cat. D. |

Material Description

Top quality service sheet for steam, gas, water, alkaline media, non-aggressive solvents and many other chemicals such as aliphatic alcohols, esters, ketones and amines composed of SBR binder and high grade chrysotile asbestos. Colour: Red/Brown.

Typical Original Properties (1.5mm)

| | | |
|---|-----------|-------------------------|
| Minimum tensile Strength (cross grain) | ASTM F152 | 35 N/mm ² |
| Specific gravity | | 1.95 gm/cm ³ |
| Compressibility | ASTM F36A | 8% |
| Recovery | ASTM F36A | 55% |
| Stress relaxation | BS 1832 | 30 N/mm ² |

Operating Guidelines

(see note below*)

| | |
|--|---------|
| Max. Temperature | 550°C |
| Max. Pressure | 130 bar |
| (Indian Standard IS 2712 / 1998 : Gr. W/1 & O/1) | |

Typical Properties after Fluid Immersion (1.5mm)

| | | | |
|---------------------------|---------------|-------|--|
| Thickness increase | | | |
| ASTM Oil 3 | 5 hours 150°C | 20% | |
| ASTM Fuel A | 5 hours 20°C | 0-10% | |
| ASTM Fuel B | 5 hours 23°C | 15% | |

UKL® Universal 3XA



Typical Specifications

| | |
|----------|---|
| British | BS 1832 Grade A and O BS F125 (Types 1 and 3) |
| German | DIN 3754 IT 400 DIN 3754 IT C DIN 3754 IT O |
| American | ASTMF104-F112121 M8 |
| French | NFT 48001 Cat. D |

Material Description

Top quality universal service sheet suitable for nearly all media such as : hydrocarbons, alkalines and medium strong acids. Composed of NBR binder and high grade chrysotile asbestos. Particularly suitable for use in aviation industry, hot oil and thermic fluids. Colour : Blue.

† Do not retorque fasteners at cryogenic temperatures

Typical Original Properties (1.5mm)

| | | |
|---|-----------|-------------------------|
| Minimum tensile Strength (cross grain) | ASTM F152 | 42 N/mm ² |
| Specific gravity | | 1.95 gm/cm ³ |
| Compressibility | ASTMF36A | 8% |
| Recovery | ASTMF36A | 55% |
| Stress relaxation | BS 1832 | 30 N/mm ² |

Operating Guidelines

(see note below*)

| | |
|---|---------|
| Max. Temperature | 550°C |
| Max. Pressure | 140 bar |
| Min. Temperature | -200°C |
| (Indian Standard IS 2712 / 1998 : Gr. O1 & W/1) | |

Typical Properties after Fluid Immersion (1.5mm)

| | | | |
|---------------------------|---------------|-------|--|
| Thickness increase | | | |
| ASTM Oil 3 | 5 hours 150°C | 8% | |
| ASTM Fuel A | 5 hours 20°C | 0-10% | |
| ASTM Fuel B | 5 hours 23°C | 12% | |

UKL® 1000



Typical Specifications

There are no standards to cover wire reinforced materials however refer to UKL, 3 X A for typical properties

Material Description

Top grade material based on UKL 3XA but reinforced with wire mesh for demanding and extreme services. Especially suitable and recommended for condition of fluctuating pressures and temperatures, i.e. when steam hammers might occur or in automotive applications. Composed of SBR binder and high grade chrysotile asbestos. Delivered with graphited surfaces. Colour : Graphite black.

Typical Original Properties (1.5mm)

| | | |
|---|-----------|------------------------|
| Minimum tensile strength (cross grain) | ASTM F152 | 33 N/mm ² |
| Specific gravity | | 2.1 gm/cm ³ |
| Compressibility | ASTMF36A | 8% |
| Recovery | ASTMF36A | 50% |
| Stress relaxation | BS 1832 | 31 N/mm ² |

Operating Guidelines

(see note below*)

| | |
|-------------------------|---------|
| Max. Temperature | 550°C |
| Max. Pressure | 200 bar |

Typical Properties after Fluid Immersion (1.5mm)

As there are no standards to cover wire reinforced materials, refer to UKL 3XA for typical properties

UKL® Oilit 3XA



Typical Specifications

| | |
|---|-----------------------|
| British | BS 1832 Grade A and O |
| German | DIN 3754 IT O |
| American | ASTM F104-F112120 M8 |
| French | NFT 48001 Cat. D. |
| Approved by the Water Research Council for use with potable water | |

Material Description

Top quality oil and petrol resistant material suitable for fuels, oils, solvents including aromatic and chlorinated hydrocarbons for high mechanical and thermal demand. Excellent resistance and compatibility for natural and town gas, water, steam, alkalines, mild acids and many other chemicals. Composed of chrysotile asbestos and NBR binder. **Also available in metallic** Colour : Black.

† Do not retorque fasteners at cryogenic temperatures

Typical Original Properties (1.5mm)

| | | |
|---|-----------|-------------------------|
| Minimum tensile Strength (cross grain) | ASTM F152 | 38 N/mm ² |
| Specific gravity | | 1.95 gm/cm ³ |
| Compressibility | ASTMF36A | 8% |
| Recovery | ASTMF36A | 55% |
| Stress relaxation | BS 1832 | 30 N/mm ² |

Operating Guidelines

(see note below*)

| | |
|-------------------------|---------|
| Max. Temperature | 500°C |
| Max. Pressure | 130 bar |
| Min. Temperature | -200°C |

(Indian Standard IS 2712 / 1998 : Gr. O/1 & W/1)

Typical Properties after Fluid Immersion (1.5mm)

| | | | |
|---------------------------|---------------|-------|--|
| Thickness increase | | | |
| ASTM Oil 3 | 5 hours 150°C | 6% | |
| ASTM Fuel A | 5 hours 20°C | 0-10% | |
| ASTM Fuel B | 5 hours 23°C | 8% | |

UKL® Acidit Plus



Material Description

High quality acid resistant material based on chrysotile asbestos and special binders compatible with strong organic and inorganic acids. Widely used in the chemical industry.
Colour : White

Operating Guidelines

Max. Temperature
Max. Pressure
(Indian Standard
IS 2712 / 1998 : Gr. A/1)

(see note below*)

400°C
100 bar

Typical Specifications

| | |
|----------|-------------------|
| British | — |
| German | DIN 3754 IT S |
| American | ASTM F104-F112000 |
| French | NFT 48001 Cat. E. |

Typical Original Properties (1.5mm)

| | | |
|---|-----------|-------------------------|
| Minimum tensile Strength (cross grain) | ASTM F152 | 30 N/mm ² |
| Specific gravity | | 1.90 gm/cm ³ |
| Compressibility | ASTMF36A | 8% |
| Recovery | ASTMF36A | 50% |

Typical Properties after Fluid Immersion (1.5mm)

| | | |
|---------------------------|--|--------------|
| Thickness increase | | |
| 96% Sulphuric acid | | 5% |
| 95% Nitric acid | | Not suitable |
| 50% Nitric acid | | 15% |

UKL® 80



Material Description

Medium quality for general purpose use. Contains chrysotile asbestos fibre bonded with SBR. **Also available in metallic**
Colour : Red/Brown

Operating Guidelines

Max. Temperature
Max. Pressure
(Indian Standard
IS 2712 / 1998 : Gr. W/3)

(see note below*)

350°C
35 bar

Typical Specifications

| | |
|----------|-------------------|
| British | BS 1832 Grade B |
| American | ASTM F104-F112700 |

Typical Original Properties (1.5mm)

| | | |
|---|-----------|----------------------|
| Minimum tensile Strength (cross grain) | ASTM F152 | 13 N/mm ² |
| Specific gravity | | 2 gm/cm ³ |
| Compressibility | ASTMF36A | 8% |
| Recovery | ASTMF36A | 50% |

Typical Properties after Fluid Immersion (1.5mm)

| | | |
|---------------------------|---------------|-------|
| Thickness increase | | |
| ASTM Oil 3 | 5 hours 150°C | 25% |
| ASTM Fuel A | 5 hours 20°C | 5-20% |
| ASTM Fuel B | 5 hours 23°C | 15% |

UKL® KLR - 232



Material Description

A Medium Range General Purpose Gasket Jointing For Steam, Water and Gas Application.
Colour : Red / Black

Operating Guidelines

Max. Temperature
Max. Pressure
(Indian Standard
IS 2712 / 1998 : Gr. W/3)

(see note below*)

270°C
25 bar

Typical Specifications

| | |
|---|---|
| — | — |
|---|---|

Typical Original Properties (1.5mm)

| | | |
|---|-----------|-------------------------|
| Minimum tensile Strength (cross grain) | ASTM F152 | 8 N/mm ² |
| Specific gravity | | 2.15 gm/cm ³ |
| Compressibility | ASTMF36A | 8% |
| Recovery | ASTMF36A | 40% |

Typical Properties after Fluid Immersion (1.5mm)

| | | |
|---------------------------|---------------|-----|
| Thickness increase | | |
| ASTM Oil 3 | 5 hours 150°C | 45% |
| ASTM Fuel A | 5 hours 23°C | 30% |
| ASTM Fuel B | | |

Tolerances

| Nominal Sheet Size | Standard | | Reinforced | |
|--------------------|--------------|--------------|--------------|--------------|
| | Width (mm) | Length (mm) | Width (mm) | Length (mm) |
| 1.5 X 4.0 M | 1510 to 1475 | 4100 to 3800 | 1500 to 1450 | 4100 to 3800 |
| 1.5 X 2.0 M | 1510 to 1475 | 2040 to 1975 | 1500 to 1450 | 2040 to 1975 |
| 1.5 X 1.5 M | 1510 to 1475 | 1510 to 1475 | 1500 to 1450 | 1510 to 1475 |
| 1.5 X 1.0 M | 1510 to 1475 | 1020 to 975 | 1500 to 1450 | 1020 to 975 |

Nominal Thickness

Up to and including 0.5 mm
Over 0.5 mm, Up to and including 1.0 mm
Over 1.0 mm, Up to and including 2.0 mm
Over 2.0 mm

Tolerances

Plus or Minus 0.05 mm
Plus or Minus 0.10 mm
Plus or Minus 0.15 mm
Plus or Minus 0.20 mm

Maximum variation within one sheet.

0.05 mm
0.10 mm
0.15 mm
0.20 mm

Special Tolerances on request.