



Mandals Ultraman is an extremely hardwearing, multi purpose industrial hose for use in abrasive environments.

Mandals Ultraman is made from extruded thermoplastic polyether based polyurethane (TPU) with excellent wear & tear properties. The reinforcement is made from circular woven filament polyester yarn. The “extrusion through the weave” production method gives a very strong bonding between cover and lining as well as firmly encapsulating the woven polyester.

The hose has high resistance against commonly used chemicals and excellent resistance to UV radiation, hydrolysis and fungus degradation. The abrasion resistance of the TPU is one of the highest available, making the hose ideal for use in rugged terrain or in applications where the strength and abrasion resistance either for the cover or lining is essential.

The circular woven filament polyester reinforcement ensures very high tensile strength combined with maximum 2% extension in length at recommended working pressure. This prevents “snaking” of the hose when pressurized. Similarly, the interlocking weave gives unequalled high pressure ratings.

Mandals Ultraman can operate in a temperature range from -50°C to +75°C and can withstand intermittent use up to +80°C.

Standard lengths up to 200 meters, and longer lengths can be made on request for diameters lower than 8 inches.

Technical Data

| Inner Diameter | | Wall Thickness | | Weight | | Burst Pressure | | Tensile Strength * | |
|----------------|-------------|----------------|-----|--------|------|----------------|-----|--------------------|--------|
| inch | mm | inch | mm | lbs/ft | kg/m | psi | bar | lbs | kg |
| 2 | 51,0 +2,0 | 0,10 | 2,6 | 0,34 | 0,51 | 1015 | 70 | 11 800 | 5 400 |
| 2 1/2 | 65,0 +2,0 | 0,10 | 2,6 | 0,43 | 0,64 | 725 | 50 | 14 400 | 6 500 |
| 3 | 76,0 +2,0 | 0,11 | 2,8 | 0,52 | 0,78 | 700 | 48 | 17 400 | 7 900 |
| 3 1/2 | 90,0 +2,0 | 0,11 | 2,9 | 0,64 | 0,95 | 580 | 40 | 20 000 | 9 100 |
| 4 | 102,0 +2,5 | 0,12 | 3,0 | 0,74 | 1,10 | 580 | 40 | 22 000 | 10 100 |
| 4 1/2 | 114,0 +2,5 | 0,12 | 3,0 | 0,84 | 1,25 | 495 | 34 | 23 800 | 10 800 |
| 5 | 127,0 +2,5 | 0,12 | 3,0 | 0,99 | 1,48 | 465 | 32 | 26 400 | 12 000 |
| 6 | 152,0 +3,0 | 0,12 | 3,0 | 1,13 | 1,75 | 465 | 32 | 32 800 | 14 900 |
| 8 | 203,0 +3,0 | 0,13 | 3,2 | 1,55 | 2,30 | 380 | 26 | 41 600 | 18 900 |
| 10 | 254,0 +4,0 | 0,13 | 3,3 | 2,07 | 3,10 | 305 | 21 | 52 100 | 23 700 |
| 12 | 305,0 + 5,0 | 0,13 | 3,4 | 2,52 | 3,75 | 220 | 15 | 84 000 | 38 200 |

Maximum recommended Working Pressure: 50% of the listed values – for temporary use. To obtain maximum lifetime for the hose, it is recommended that the Working Pressure or the Working Tensile Stress does not exceed 1/3 of the listed values.

** Total theoretical longitudinal strength.*