

Performance Data

| Properties | Test | Result | |
|--------------------------------|--------------------------|-----------------------|---|
| Operating temperature range | | -70°C +150°C | |
| Melt Temperature ASTM D-2117 | | 240°C | |
| Low Temperature Flexibility | MIL-DTL-23053E | -70°C | |
| Flammability | UL 1441 | VW-1 classified | |
| Copper Corrosivity | MIL-I-23053 | No Effect | |
| | | Expando HR | Expando HR Plus |
| Flammability | F.A.R Part 25 UL 1441 | VW-1 | Pass VW-1 classified |
| Smoke Density | ASTM E-1354 | D _{mc} =0.30 | D _{mc} =0.30 |
| Hard Vacuum | ASTM E-595 | | Expando sleeving products made with the patented "Plus" treatment should not be used in hard vacuum environments nor immersed in solvents or liquids where Plus particulates could contaminate the system environment. Consult us for information on protection products for these applications |
| • TML | | 0.14% | |
| • CVCM | | 0.02% | |
| • WVR | | 0.01% | |
| Fluid Resistance | MIL-I-23053 | Tensile Retention: | |
| • JP4 Jet Fuel (MIL-T-5624) | | 97% | |
| • Hydraulic Fluid (MIL-H-5606) | | 100% | |
| • Lube Oil (MIL-I-7808) | | 99% | |
| • De-Icing Fluid (MIL-A-8243) | | 98% | |
| • Salt Water (O-S-1926) | | 98% | |

Product Specifications - Expando HR

| Description | Recommended diameter range (mm) | | Part number | Weight (g/100m) | Packaging (m) |
|---------------|---------------------------------|-------|-------------|-----------------|---------------|
| | Min. Ø | Max.Ø | | | |
| Expando HR 3 | 2 | 6 | 50110003xxS | 402 | 600 |
| Expando HR 6 | 3 | 11 | 50110006xxS | 596 | 300 |
| Expando HR 13 | 6 | 19 | 50110013xxS | 1790 | 150 |
| Expando HR 19 | 12 | 32 | 50110019xxS | 2685 | 150 |
| Expando HR 32 | 19 | 45 | 50110032xxS | 3431 | 75 |
| Expando HR 45 | 32 | 70 | 50110045xxS | 5669 | 75 |

Product Specifications - Expando HR Plus

| Description | Recommended diameter range (mm) | | Part number | Weight (g/100m) | Packaging (m) |
|-----------------|---------------------------------|-------|-------------|-----------------|---------------|
| | Min. Ø | Max.Ø | | | |
| Expando HR + 3 | 2 | 6 | 51110003xxS | 402 | 600 |
| Expando HR + 6 | 3 | 11 | 51110006xxS | 596 | 300 |
| Expando HR + 13 | 6 | 19 | 51110013xxS | 1790 | 150 |
| Expando HR + 19 | 12 | 32 | 51110019xxS | 2685 | 150 |
| Expando HR + 32 | 19 | 45 | 51110032xxS | 3431 | 75 |
| Expando HR + 45 | 32 | 70 | 51110045xxS | 5669 | 75 |

Part Numbering System

| Example : | Description | Size | Color | Quantity |
|-----------|-------------|------|-----------|----------|
| | Expando HR | 32 | 0 (black) | 75 m |

Availability

Bentley-Harris® Expando HR and HR Plus is available in sizes from 3 mm to 45 mm.

Standard colours are black with a white tracer and white with a black tracer.

(xx = colour code)
32 = black with white tracer
23 = white with black tracer

Expando HR and HR Plus is supplied on cardboard spools or cut to length according to your specifications.

Longitudinal shrinkage should be taken into account when utilizing expansion properties of the sleeve.

All numeric data shows average or typical values.

