< SCAPA > **PIPELINE PROTECTION FOR THE LONG HAUL**



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SCAPA TAPES For Pipelines

Scapa is a leading manufacturer of anticorrosion pipeline protection systems and has provided products that meet the rigorous demands of on-land pipelines for more than 25 years.

Scapa RENWRAP[®] products are designed for application to new construction pipe in both plant and infield settings, as well as the repair and reconditioning of existing pipelines in the oil, gas, and water industries. Our efficient products consistently offer excellent adhesion and shear resistance and operate under a wide range of temperatures.

Scapa adhesive systems are impermeable to water and oxygen, and are compatible with coal tar, fusion bond epoxy, asphalt, and polyethylene pipeline coatings. They have sufficient adhesion and strength to resist soil stress, under-film migration of moisture, environmental stress cracking, and mechanical damage during handling.

Line Travel

Scapa offers products for over-the-ditch line travel applications. The products in this range exhibit aggressive adhesion, operate under a wide range of temperatures, and are resistant to high levels of soil stress.

They form an impermeable barrier to water and oxygen and are resistant to environmental stress cracking caused by elevated temperatures. RENWRAP rockshield products protect coated pipe from the damage that typically occurs during backfilling.

Joint Wrapping

Our joint wrapping products are specifically designed for handwrapping field joints, fittings, ells, and tees. They maintain adhesion to plastic

and FBE pre-coated pipe under a wide range of temperatures and are able to fill voids around irregular shapes. All products are compatible with coal tar, fusion bond epoxy, asphalt, and polyethylene pipeline coatings and provide excellent protection against electrolytic and environmental corrosion.

Yard Coating

Scapa yard coating products provide excellent adhesion, shear, and low-temperature properties and are resistant to environmental stress cracking. Their tough polyethylene backings provide protection from damage caused by lowering in, backfilling, and soil stress.

PRIMERS

| RENWRAP Product ³ | Description | Colors | Base Adhesive System | Solvent System | Total Solids % | Viscosity | Flash Point |
|---------------------------------|--|--------|-----------------------------------|-------------------------|----------------------|-----------------|-------------------|
| 319*** | Recommended for machine application to new or smooth pipe services. Promotes high bond to RENWRAP pipeline coatings. | Black | Synthetic rubber and resins | Heptane/Toluene | 19 | Thin Syrup | -12C (+10F) |
| 327*** | Recommended for use on all hand-brush applications with RENWRAP pipeline coatings. Can also be used in machine applications to rough, reconditioned surfaces where a higher solids content is needed. | Black | Synthetic rubber and resins | VM&P Naphtha/Toluene | 27 | Medium Syrup | -4C (+40F) |
| 327 Aerosol*** | Aerosol primer recommended for use on all RENWRAP pipeline coatings. Can also be used in machine applications to rough, reconditioned surfaces where a higher solids content is needed. | Black | Synthetic rubber and resins | VM&P Naphtha/Toluene | 27 | Medium Syrup | -4C (+40F) |
| 328 | Recommended for use with RENWRAP pipeline coatings. Used for non-flammable applications where extreme safety precautions are observed. | Black | Synthetic rubber and resins | Trichloroethylene | 11 | Thin Syrup | Non- flammable |

³ Also available in high temperature/high shear, available in 1, 5 and 55 gallon units.

*** Flammable mixtures.

See technical data sheet for further information.

COATINGS

| RENWRAP Product | Description | Colors | Total Thickness mils (mm) | Backing Thickness mils (mm) | Adhesive Thickness mils (mm) | Adhesion to Primed Steel 1 | | Tensile Strength ¹ | | Elongation | Dielectric | Dynamic Shear ² | |
|--------------------|---|---|--|---|--|--------------------------------------|----------------------------|--------------------------------------|----------------------|--------------------------|-----------------------------|-----------------------------------|---|
| | | | | | | kg/cm width | lbs./inch width | kg/cm width | lbs./inch width | % | Strength ¹ KV | Width kg/cm ² (psi) | Application |
| 300 | Low density polyethylene film, calendered with a butyl rubber adhesive. | Black* | 10 (0.254) 12 (0.305) 20 (0.508) | 7 (0.178) 8 (0.203) 15 (0.381) | 3 (0.076) 4 (0.102) 5 (0.127) | 1.70 1.90 2.20 | 9.40 10.90 12.50 | 4.46 4.46 5.36 | 25 25 30 | 150 150 175 | 11 13 20 | - - | General pipeline utility tape for use on small diameter pipe joints, tees and ells. |
| 308** | Machine applied high/low density polyethylene film, calendered with a butyl rubber adhesive. | Black | 15 (0.381) 18 (0.457) 20 (0.508) 25 (0.635) | 9 (0.229) 10 (0.254) 12 (0.305) 13 (0.330) | 6 (0.152) 8 (0.203) 8 (0.203) 12 (0.305) | 3.04 3.04 3.04 3.04 3.04 | 17 17 17 17 17 | 7.14 7.14 7.14 7.14 7.14 | 40 40 40 40 | 250 250 300 300 | 21 21 22 23 | - - - | Over the ditch or plant applied coating on pipelines. The product is also used on pre- fabricated bends. |
| 308 HS** | Machine applied high/low density polyethylene film, calendered with a cross- linked butyl rubber adhesive. | Black | 15 (0.381) 20 (0.508) | 9 (0.229) 12 (0.305) | 6 (0.152) 8 (0.203) | 3.93 3.93 | 22 22 | 7.14 7.14 | 40 40 | 250 300 | 21 22 | 3.57 (20) 3.57 (20) | Over the ditch or plant applied coating on pipelines. The product is also used on pre- fabricated bends. |
| 330 | Low density polyethylene film, calendered with a butyl rubber adhesive. | Black, White & Light Blue | 25 (0.635) 30 (0.762) 35 (0.889) 50 (1.270) | 7 (0.178) 7 (0.178) 7 (0.178) 10 (0.254) | 18 (0.457) 23 (0.584) 28 (0.711) 40 (1.016) | 2.50 2.50 2.50 4.11 | 14 14 14 23 | 2.50 2.50 2.50 4.11 | 14 14 14 23 | 200 225 250 250 | 14 17 19 26 | - - - | Pipeline joint/ handwrap for wrapping field joints, fittings ells and tees. |
| 330L | Low density polyethylene film, calendered with a butyl rubber adhesive. The product is supplied with a release liner to facilitate roll unwinding. | Black, White, Gray & Light Blue | 25 (0.635) 35 (0.889) 50 (1.270) | 7 (0.178) 7 (0.178) 10 (0.254) | 18 (0.457) 28 (0.711) 40 (1.016) | 2.20 2.50 4.11 | 12.50 14 23 | 3.60 3.60 4.11 | 20 20 23 | 250 250 250 | 19 19 26 | - - - | Used for applications where a high bond at the overlap is required in pipeline joint / handwrap for field joints, fittings ells and tees. |
| 350 | Perforated polyethylene film for cathodic protection purposes. | Black* | 15 (0.381) 20 (0.508) 40 (1.016) | - - - | - - - | - - - | - - | 5.36 6.25 7.14 | 30 35 40 | 150 200 200 | - - - | - | Outerwrap and rock shield. The product is designed for use where a bond to anti- corrosion coating is not required. |

¹ ASTM D 1000.

² Scapa North America Test Method.
* Other custom colors available upon request.

** Must be applied using constant tension brakes, applying tension to the tape itself and not the roll core

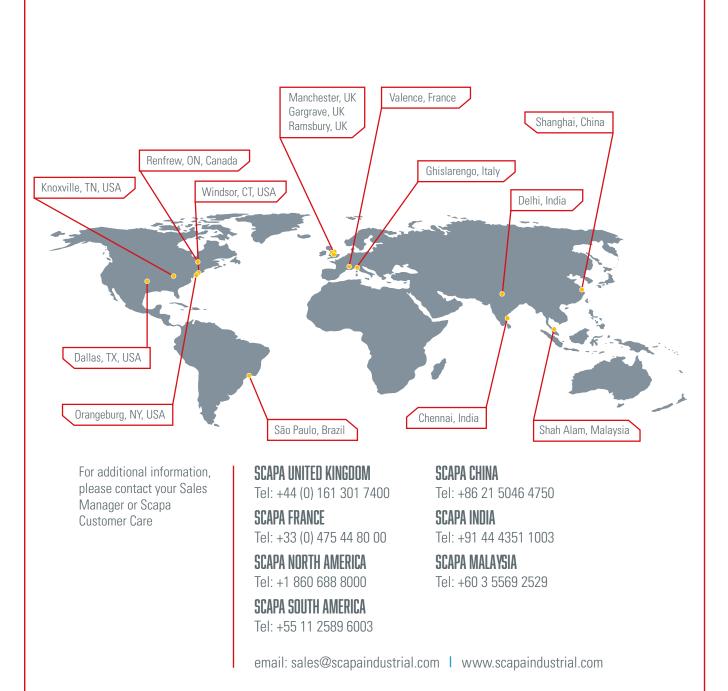
OUTERWRAPS

| RENWRAP | Description | Colors | Total Thickness mils (mm) | Backing Thickness mils (mm) | Adhesive Thickness mils (mm) | Adhesion to Backing ¹ | | Tensile Strength ¹ | | Elemention | | |
|----------|--|---------------------------------------|--|--|--|----------------------------------|---|-------------------------------|----------------------|--------------------------|---|--|
| Product | | | | | | kg/cm width | lbs./inch width | kg/cm width | lbs./inch width | Elongation % | Application | |
| 355** | Machine applied polyethylene film, calendered with a butyl rubber adhesive. | White & Black | 15 (0.381) 20 (0.508) 25 (0.635) 40 (1.016) | 10 (0.254) 15 (0.381) 20 (0.508) 35 (0.889) | 5 (0.127) 5 (0.127) 5 (0.127) 5 (0.127) | 0.56 0.56 0.56 0.56 | 3.125 3.125 3.125 3.125 3.125 | 5.36 7.14 7.14 8.04 | 30 40 40 45 | 250 300 300 350 | Outerwrap and rock shield. The product is designed to protect RENWRAP innerwrap from mechanical damage during lowering-in, backfilling and in- service of pipelines. | |
| 355-30** | Machine applied polyethylene film, calendered with a butyl rubber adhesive. | Gray* | 30 (0.762) | 25 (0.635) | 5 (0.127) | 0.56 | 3.125 | 8.04 | 45 | 350 | Outerwrap for RENCOAT [®] 50 and RENCOAT 80 plant applied coating systems. | |
| 365** | Machine applied polyethylene film, calendered with a butyl rubber adhesive. | White, Black & Light Blue | 20 (0.508) 25 (0.635) 30 (0.762) | 15 (0.381) 20 (0.508) 25 (0.635) | 5 (0.127) 5 (0.127) 5 (0.127) | 0.56 0.56 0.56 | 3.125 3.125 3.125 3.125 | 7.14 8.04 9.82 | 40 45 55 | 400 400 400 | Pipeline outerwrap specifically designed for use in plant coating operations where controlled applications exist. | |
| 366LT** | Machine applied polyethylene film, calendered with a butyl rubber adhesive for low temperature in-service operating conditions. | Black | 25 (0.635) | 20 (0.508) | 5 (0.127) | 0.56 | 3.125 | 8.93 | 50 | 400 | Pipeline outerwrap specifically designed for use in plant coating operations where controlled applications exist. | |

¹ ASTM D 1000. * Other custom colors available upon request.

** Must be applied using constant tension brakes, applying tension to the tape itself and not the roll core.

GLOBAL Solutions



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