

Wear Resistance

BoreShield ARO™ I

by InduMar Systems, LP

BoreShield ARO I is a field-applied abrasion resistant outerwrap (ARO) consisting of a unique, heavy duty fiber glass reinforcement and water-activated urethane resin, designed for impact and abrasion resistance in weld seam, small pipeline, and riser applications.

The BoreShield System provides protection from external wear, abrasion, and impact events. The composite system includes a custom weave, heavy fiberglass tape, pre-coated with a toughened, water-activated urethane resin. The high bond strength provides high durability and resistance to shear if pipe is to be pulled. Installation entails only wrapping the composite around the area in need of protection and subsequent compression banding. The BoreShield system can be applied underwater without any influence on final material properties or cure rate.

Boreshield ARO™ I Attributes

- Excellent abrasion, impact, and wear resistance
- Installed over tapes and coatings to protect weld seams
- Superior toughness and resistance to environmental degradation
- Strong adhesion to pipe surfaces
- Water activated urethane resin system fully cures to an inert fully encasing matrix
- Requires minimal pipe preparation
- Installed with no hot work, regardless of weather conditions, pipe orientation, or local geometries



Technical Specifications

Set Time: Tack free in 20 to 50 minutes at ambient temperatures of 50°F to 80°F (10°C to 27°C). Set time is slower below 50°F and faster above 80°F.

Heat Resistance: From -20°F up to 250°F (-29°C to 121°C) – continuous. From 250°F to 500°F (121°C to 260°C) – temporary exposures.

Shelf Life: 6 months from date of purchase when stored at 40°F to 83°F (5°C to 28°C) with proper stock rotation.

Ply Thickness: 21 mil (cured)

Color: Black, Safety Yellow

Impact Strength: 382 in-lbs (43.2 J)

Wear Resistance: 1,506 cycles per mil loss (ASTM D4060, Taber CS17 abrasion wheel)

Gouge Resistance: 26 mil gouge depth (CSA Z245.20)

Hardness: 65 Shore D. (ASTM D 2240 measured at full cure.)

Lap Shear Strength: 1610 psi (ASTM 5868, measured on FBE)

Description: BoreShield ARO™ I tapes are available in 6" widths and in 30' lengths; custom lengths to match project specific needs also available. These products are supplied in a sealed foil pouch with installation instructions.

