

**Permobond® RS-4003 Black Natural Rubber** has excellent physical properties, like tensile strength, abrasion resistance, and elongation. As well has good resistance to most inorganic chemicals, with the exception of strong oxidizing agents. Resistance to weather (ozone), UV and water. RS-4003 is flexible and will expand and contract with thermal variations of the metal substrate. Often used in applications such as rubber hose exterior cover for it's excellent weather resistant physical properties.

## **PHYSICAL PROPERTIES**

ASTM TEST	VALUE
Hardness (ASTM D2240)	60 +/- 5 Shore A
Tensile (ASTM D412)	3800 psi (min.)
Elongation (ASTM D412)	500% (min.)
Adhesion (ASTM D429)	25Lbs (min.)
Tear (Die C)	350 Lbs/Lin. In.
Service Temperature	212°F max. (100°C)
Specific Gravity	1.14

#### **RESISTANCE TO**

RESISTANCE 10		
MATERIAL	VALUE	
Abrasion, Sliding	Excellent	
Abrasion, Impingement	Excellent	
Acid (Diluted)	Excellent	
Salt Solutions	Good	
Oxygenated Solvents	Good	
Acid (Concentrated)	Good	
Animal & Vegetable Oils	Poor	
Oil & Gasoline	Poor	

#### ATMOSPHERIC AGING

MATERIAL	VALUE
Low Temperature Flexibility	Excellent
Moisture Resistance	Excellent
Compression Set	Good
Ozone	Excellent

#### STANDARD ROLL SIZES

GUAGE	WIDTH	LENGTH	AREA
1/8" (3mm)	4' (1.22m)	131.25' (40m)	525ft² (48.77m²)
3/16" (4mm)	4' (1.22m)	91.75' (27.96m)	367ft² (34.05m²)
1/4" (6mm)	4' (1.22m)	62.25' (18.97m)	249ft² (23.13m²)
3/8" (9mm)	4' (1.22m)	49.25' (15.01m)	197ft² (18.30m²)
1/2" (12mm)	4' (1.22m)	32.75' (9.98m)	131ft² (12.17m²)

# **CURE METHOD UP TO 1/4" (6mm)**

METHOD	TEMPERATURE
Pressure Cure (Autoclave)	1 Hr @ 275°F (135°C)
Internal Pressure	1 Hr Rise to 250°F (121°C)
	Hold @ 250°F (121°C) for 6 Hrs
Atmospheric	24 Hrs @ 212°F (100°C)

# **ADHESIVE SYSTEM**

COAT	ADHESIVE
1st Coat (Primer)	Chemlok 289
2nd Coat (Intermediate)	Chemlok 290
3rd Coat (Tack)	Chemlok 286
4th Coat (Tack)	Chemlok 286

# TYPICAL APPLICATIONS

- Piping
- Storage Vessels
- Thickeners/Clarifiers
- Rubber Hose
- Flotation Cells

## **APPLICATION NOTES**

- 1. Use application procedure for guidance.
- **2.** Make repairs with original lining and follow the specified cure methods.
- 3. Curing times listed are guidelines only.
- **4.** Keep rubber roll in the box until use and always off the ground and suspended.
- **5.** Shelf Life: Stored below  $50^{\circ}F$  ( $10^{\circ}C$ ) = 180 days.
- **6.** Contact your account representative for specific technical material and lining methodology recommendation.

**Disclaimer:** The above guidelines are based on general industry practices and not applicable to all installations. Application methods should comply with RubberSource application instructions. The data values use is an approximate value and may vary based on individual application methodology and local atmospheric conditions.