# **TECHNICAL DATA SHEET**

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# **1006** HARD NATURAL RUBBER

#### March 2015

**Polycorp 1006** is a black 70 D durometer general purpose hard natural rubber lining "Acidseal E" with soft natural rubber tie-gum for severe corrosion services at elevated temperatures. It is FDA compliant as per 21CFR177.2600. Operating temperature range is from 41°F ( $5^{\circ}$ C) to 185°F ( $85^{\circ}$ C).

### **APPLICATION NOTES:**

- Skive use closed skive construction
- **Repair** Same or 1038 chemical cure. Refer to section 11 of application manual.
- A heated table to warm the rubber to 110–120°F (43°C) is recommended
- Cured Durometer Shore D Durometer of top surface: 70 ± 10. (see note for atmospheric cure)
- **Spark Test** Refer to section13 of the Application Manual

#### **ADHESIVE NOTES:**

See Section 6 of the Polycorp Rubber Lining Application Manual for specific cementing / adhesion notes. For proper adhesion, temperatures must be over 60°F

 $(15^{\circ}C)$  and must not exceed  $120^{\circ}F$  ( $49^{\circ}C$ ).

Use adhesives in well-ventilated area and always consult the material safety data sheet for specific precautions.

Coat	Polycorp Adhesive	Approved Equivalent
1 <sup>st</sup> Coat on Metal	C-90 Primer	Chemlok 289
2 <sup>nd</sup> Coat on Metal	C-91 Intermediate	Chemlok 290
3 <sup>rd</sup> Coat on Metal	C-202S Tack	Chemlok 286
4 <sup>th</sup> Coat on lining	C-202S Tack	Chemlok 286

### **CURING:**

Cure time adjustments may be required to compensate for specific conditions. See Section 10 of the Application Manual for detailed instructions. All recommendations below are for lining thicknesses up to  $\frac{1}{4}$ ".

Autoclave Method – 1/8" thickness: 2 hours @  $300^{\circ}F/149^{\circ}C$ .

Autoclave Method –  $3/16^{\circ}$  and  $1/4^{\circ}$  thickness: 1 hour @  $260^{\circ}$ F/127°C, followed by 1 hour @  $274^{\circ}$ F/134°C (30 psi), and followed by 3 hours @  $287^{\circ}$ F /142°C (40 psi).

Internal Steam Method - 3/16" and 1/4" thickness: 10 hours @  $260^{\circ}F/127^{\circ}C$  (20 psi).

Atmospheric Steam Method –  $3/16^{\circ}$  and  $\frac{1}{4}^{\circ}$  thickness: Minimum 40 hours @  $212^{\circ}F/100^{\circ}C$ . Note: Lower durometer reading will result with this type of cure.









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#### **STORAGE:**

Store in a cool and dry area.	
Shelf Life	
Stored below 50°F (10°C)	180 days
Stored between 51 and 70°F	90 days
Stored between 71 and 90°F	45 days
Do not store above 90°F (32°C)	

Depending on storage conditions it may be possible to use rubber linings beyond the recommended shelf life however additional testing must be completed. Please contact Polycorp for recommended test procedures. A sample of the rubber lining can also be sent back to Polycorp for verification.

Storage, handling and application methods must conform to the Polycorp Rubber Lining Application Manual.

### **TYPICAL PROPERTIES:**

Property	Value	ASTM Test Method
Hardness (Face) (points)	70D ± 10	D2240
Tensile Strength (min, psi)	2500 psi	D412
Elongation at Break (min, %)	15	D412
Specific Gravity	1.33	D297
Adhesion to Metal (min, lbf/in)	25	D429
Operating Temperature Range for Optimum Service Life	41°F (5°C) to 185°F (85°C)	N/A

All physical property values developed and measured using a press-cured sample sheet prepared in accordance with ASTM D3182.

## **PRECAUTIONS:**

- This is a hard rubber compound. Over curing will cause brittleness.
- Do not use in transport equipment. This lining may not be suitable for equipment that may be exposed to
  extremely low temperatures. If temperatures will be below 32 °F/0°C, contact Polycorp with all the service
  conditions for a specific recommendation.
- Cool down to 120°F/49°C before releasing pressure during pressure cure.
- Do not ship lined tank below 20 °F.





