# TECHNICAL DATA SHEET



# 1042

## SEMI-HARD FLEXIBLE RUBBER

October 1, 2010

**Polycorp 1042** White 85A durometer semi-hard ebonite blend of natural rubber and synthetic material with natural rubber tie gum offering maximum resistance to chemical and temperature. A-I-E Cure. FDA compliant as per 21CFR177.2600

**Application Notes:**

- **Skive** – use closed skive construction
- **Repair** – Same
- **Cured Durometer**: Shore A Durometer of top surface: 85 ± 10. Shore D Durometer of top surface: 35 ± 10.
- A heated table to warm the rubber to 110–120°F (43°C) is recommended
- **Spark Test** – Refer to section 13 of the Application Manual

**Adhesive Notes:**

See Section 9 of the Polycorp Rubber Lining Application Manual for specific cementing / adhesion notes.
For proper adhesion, temperatures must be over 60°F (15°C) and must not exceed 120°F (49°C). Use adhesives in well ventilated area and always consult the material safety data sheet for specific precautions.

| Coat | Polycorp Adhesive | Approved Equivalent |
|---|---|---|
| | | |
| 1st Coat on Metal | C-90 Primer | Chemlok 289 |
| 2nd Coat on Metal | C-91 Intermediate | Chemlok 290 |
| 3rd Coat on Metal | C-204S Tack | Chemlok 286 |
| 4th Coat on lining | C-204S Tack | Chemlok 286 |

For distributors of Chemlok adhesives, see Section 9 of the Application Manual

**Curing:**

Cure time adjustments may be required to compensate for specific conditions. See Section 11 of the Application Manual for detailed instructions. All recommendations below are for lining thicknesses up to ¼".

**Autoclave Method – 3/16" & 1/4" thickness:** 2 1/2 hours @ 250°F/121°C (15 psi). Cool down under pressure.

**Internal Steam Method – 3/16" & 1/4" thickness:** 5 hours @ 250°F/121°C (15 psi). Cool down under pressure.

**Atmospheric Steam Method – Up to 1/4" thickness:** Minimum 24 hours @ 212°F/100°C. Lower durometer readings may result with this type cure.

**Storage:**

Store in a cool, dry area.

Shelf Life:

| | |
|---|---|
| Stored below 50°F (10°C) | 180 days |
| Stored between 51 and 70°F | 60 days |
| Stored between 71 and 90°F | 30 days |
| Do not store above 90°F (32°C) | |

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

**Typical Properties:**

| Property | Value | ASTM Test Method |
|---|---|---|
| | | |
| Hardness (Face) | 85A/ 35D ± 10 | D2240 |
| Tensile Strength (min, psi) | 1000 | D412 |
| Elongation at Break (min,%) | 100 | D412 |
| Specific Gravity | 1.26 | D927 |
| Adhesion to Metal (min, lbs) | 25 | D429 |
| Maximum Operating Temperature for Optimum Service Life | 85°C/ 185°F | 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. Overcure will cause brittleness.
- Do not use in transport equipment or tanks to be installed outside.
- 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
- Calendered stock typically shrinks. Warm stock to 100°F/38°C to 120°F/49°C before applying.
- Crowd rather than stretch during application.
- Extend rubber minimum of two (2) inches past flange face to allow for shrinkage during cure. Trim flanges and cut bolt holes after cure.
- Cool down under air pressure to 120°F/49°C before releasing pressure when using a pressure cure.