

# 4640

## CHEMICAL CURE CHLOROBUTYL LINING

March 2017

**Polycorp 4640** is a black 55A durometer chemical cure chlorobutyl blend lining with tie gum. General purpose repair stock for chlorobutyl lining **4631**. C-600 cure activator is used to cure the rubber. It is FDA compliant as per 21CFR177.2600. Operating temperature range is from - 4°F (-20°C) to 185°F (85°C).

### APPLICATION NOTES:

- **Skive** – use closed skive construction
- **Repair** – Same. Refer to section 11 of application manual.
- **Cured Durometer** – Shore A Durometer of top surface: 55 ± 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 6 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.

### CURING:

Cure time adjustments may be required to compensate for specific conditions. See Section 10 of the Application Manual for detailed instructions. After application, brush the rubber surface with three (3) separate coats of C-600 activator. Allow to dry for 30 minutes between each coat.

**Ambient** – The chemical cure lining will vulcanize in about three (3) weeks at 75°F/24°C. Lower hardness readings might result with this type of cure.

**Atmospheric Steam Assist** – Introduce exhaust steam sufficient to insure contact with all surfaces. Approximately 4-8 hours in exhaust team will be required to cure lining. More time may be necessary in a large tank, or if heat losses are large.

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

## STORAGE:

Store in a cool and 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     | 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)                                      | 55 A ± 10                     | D2240            |
| Tensile Strength (min, psi)                          | 1200                          | D412             |
| Elongation at Break (min, %)                         | 450                           | D412             |
| Specific Gravity                                     | 1.30                          | D297             |
| Adhesion to Metal (min, lbs)                         | 25                            | D429             |
| Operating Temperature Range for Optimum Service Life | - 4°F (-20°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.

## SPECIAL TREATMENT AFTER APPLICATION:

- After application, brush the rubber surface with three (3) separate coats of C-600 cure activator. Allow to dry 30 minutes between each coat.