

# 1038

## SEMI-HARD CHEMICAL CURE

March 2015

**Polycorp 1038** is a black, 85 A/35D durometer chemical cure semi-hard natural rubber with soft natural rubber tie gum. Repair stock for black semi-hard natural rubber. It is FDA compliant as per 21CFR177.2600. For FDA application use cure activator C-600. Operating temperature range is from 50°F (10°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: 85 ± 10.
- **Special Treatment After Application** - Brush the rubber surface with three (3) separate coats of C-600 activator. Allow to dry for 30 minutes between each coat.
- **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. All recommendations below are for lining thicknesses up to ¼”.

**Ambient** - The chemical cure lining will vulcanize in about three (3) weeks at 75°F/24°C.

**Atmospheric Steam Assist** – Introduce exhaust steam sufficient to insure contact with all surfaces. Approximately 8-12 hours in exhaust steam 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 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

## 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)	35 D ± 10	D2240
Tensile Strength (min, psi)	1000 psi	D412
Elongation at Break (min, %)	50	D412
Specific Gravity	1.67	D297
Adhesion to Metal (min, lbf/in)	25	D429
Operating Temperature Range for Optimum Service Life	50°F (10°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.