

# 4631

## BLENDED CHLOROBUTYL LINING

March 2017

**Polycorp 4631** is a black 55A durometer blended chlorobutyl lining. This lining is used as an overlay on Polycorp 1099 in the vapor pad area of HCL tank cars to reduce the “chunking” effect in the vapor pad area caused by the movement of HCL during transportation. It can also be used as a regular lining for corrosion protection in other applications. It is FDA compliant as per 21CFR177.2600. Operating temperature range is from - 40°F (-40°C) to 160°F (71°C).

### APPLICATION NOTES:

- **Skive** – Depending on application open or closed skive constructions can be used.
- **Repair** – Same or chemical cure 4640. Refer to section 11 of application manual.
- **Cured Durometer** – Shore A Durometer of top surface: 55 ± 5.
- 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.

#### Autoclave Method – Up to ¼” thickness:

2 hours @ 260°F/127°C (20 psi).

#### Internal Steam Method – Up to ¼” thickness:

6 hours @ 260°F/127°C (20 psi).

When used as vapor pad in HCL tank cars add 1 ½ hours of cure onto regular cure cycle.

#### Atmospheric Steam Method – Up to ¼” thickness:

Minimum 24 hours @ 212°F/100°C.

Coat	Polycorp Adhesive	Approved Equivalent
1 <sup>st</sup> Coat on Metal	C-90	Chemlok 289
2 <sup>nd</sup> Coat on Metal	C-91	Chemlok 290
3 <sup>rd</sup> Coat on Metal	C-202S	Chemlok 286
4 <sup>th</sup> coat on lining	C-202S	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 ± 5	D2240
Tensile Strength (min, psi)	1400	D412
Elongation at Break (min, %)	500	D412
Specific Gravity	1.30	D297
Adhesion to Metal (min, lbs)	25	D429
Operating Temperature Range for Optimum Service Life	- 40°F (- 40°C) to 160°F (71°C)	N/A

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