

TECHNICAL DATA SHEET

1004 Page 1 of 2

1004

SEMI-HARD NATURAL RUBBER

October 1, 2009

Polycorp 1004 Black 60 D durometer Superflexite A, semi-hard natural rubber lining with soft natural rubber tie gum with excellent chemical and temperature resistance at elevated temperatures. A-I-E Cure.

Application Notes:

- **Skive** – use closed skive construction
- **Repair** – Same or 1038 chemical cure.
- **Cured Durometer** – Shore D Durometer of top surface: 60 ± 10.
- **Spark Test** – Refer to section 13 of the Application Manual
- When using the atmospheric steam curing method, the 1004 will not obtain the pressure cured hardness.

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.

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

Autoclave Method –

1/8" thickness: 2 hours @ 300°F/149°C

3/16" and 1/4" thickness: 1 hour @ 260°F/127°C, followed by 2 hours @ 300°F/149°C. Cool down under pressure.

Internal Steam Method - 3/16" and 1/4" thickness: 10 hours @ 274 °F/134 °C (30 psi)

Atmospheric Steam Method – Minimum 40 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

TECHNICAL DATA SHEET

1004 Page 2 of 2

Typical Properties:

<u>Property</u>	<u>Value</u>	<u>ASTM Test Method</u>
Hardness (Face)	60 D \pm 10	D2240
Tensile Strength (Min. psi)	1500	D412
Elongation at Break (Min. %)	60	D412
Specific Gravity	1.27	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