



Protective
&
Marine
Coatings



Certified to
NSF/ANSI/CAN 61

PIPECLAD® 704G PIPE COATING SYSTEM



Revised: July 8, 2026

PRODUCT INFORMATION

PRODUCT DESCRIPTION

PIPECLAD 704G is a thermosetting epoxy powder coating engineered for use inside and outside pipelines. It is optionally applied over phenolic primers such as Pipeclad HXR0015.

PRODUCT CHARACTERISTICS

Color: Blue Green

Thermal Properties

CSA Z245.20: T_{g1} 55°C-65°C (131°F-149°F)
T_{g2} 102°C-112°C (216°F-234°F)

Moisture Content 0 - 0.5%

Particle Size: d10 10-15 microns (0.4-0.6 mils)
d90 120-135 microns (4.8-5.4 mils)

Plate Flow: 46-71 mm at 149°C (300°F)

Specific Gravity: 1.48-1.54 g/cm³

Shelf Life: 12 months at 25°C (77°F), 50% RH

Recommended Coating Thickness:

	Minimum	Maximum**
Dry microns* (mils)	250 (10.0)	500 (20.0)
Theoretical Coverage:	0.662 m ² /kg per mm (127 ft ² /lb per mil)	

*Other thicknesses may be used depending on application conditions and requirements. Contact your Sherwin-Williams representative for assistance.

**For NSF certified applications, the maximum approved thickness is 60 mils (1,500 microns), and the maximum approved operating temperature is 60°C / 140°F.

Cure Characteristics (see graphs on second page):

Gel time* @ 204°C/400°F:

704G.F (Fast Gel): 22-32 seconds

704G (Long Gel): 106-130 seconds

*Modified ISO 8130-6

RECOMMENDED USES

- CO₂ injection WAG
- Oil/water/gas production
- Brine injection/disposal
- Flow lines
- Line pipes
- Use temperature to 121°C (250°F)
- Primer: Phenolic Primer (optional)
- Meets the performance requirements of AWWA C213-15

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results	
Abrasion Resistance	ASTM D4060, CS17 wheel, 1 kg load	65.3 mg loss (1000 cycles)	
		285.96 mg loss (5000 cycles)	
Autoclave ^{1,2}	93°C (200°F), 3,500 psig, 5% H ₂ S / 8% CO ₂ / 87% CH ₄ 50% Toluene / 50% Kerosene 5% NaCl Brine	Pass, excellent adhesion ; 24 hours	
Bendability	AWWA C213 section 5.2.2.3	No crack	
Cathodic Disbondment	3.5V, 24 hours at 65°C (149°F)	3.5 mm	
	ASTM G8 (Method A)	1.09 mm	
Coefficient of Friction	ASTM D1894 (Kinetic / Static)	0.21 / 0.22	
Dielectric Strength	ASTM D149	1100 V/mil 43 kV/mm	
Elongation	ASTM D638, Type V, 5mm/min crosshead rate	13.0%	
Flexibility	CSA Z245.20	2.0°/PD at -30°C (-22°F) 4.0°/PD at 23°C (73°F)	
Gouge Resistance	NACE TM2015, 23°C / 73°F, SL-1 Smooth	Weight (kg)	Gouge Depth micron (mil)
		30	63 (2)
		50	227 (9)
Impact Resistance	ASTM G14	193.5 in. lb.	
Penetration at 104°F	ASTM G17	4.08%	
Shear Adhesion	ASTM 1002	5,991 psi	
Volume Resistivity	ASTM D257	7.0 x 10 ¹⁵ Ohm-cm	
Water Resistance	ASTM D4585-18 Cleveland Test 52°C	Pass, excellent adhesion, no blister, no swelling ; 504 hours	

¹These test results are based on laboratory simulations of field conditions and should serve only as a general guide. Test results may not accurately predict field performance.

²704G applied over HXR0015 phenolic primer



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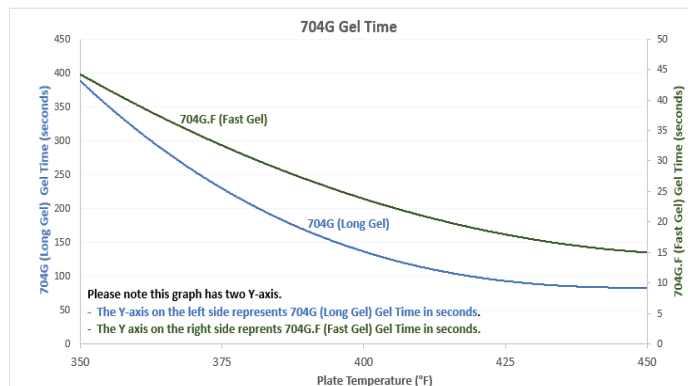
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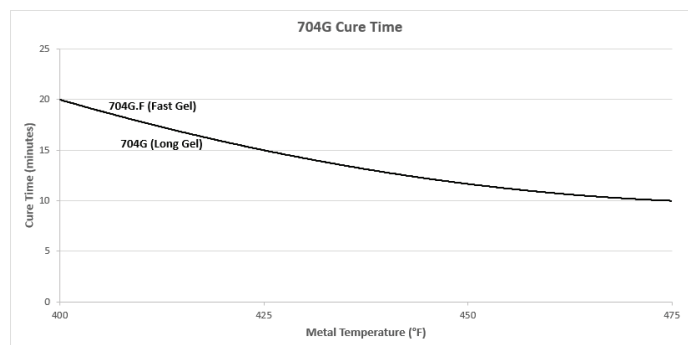
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GEL TIME GRAPH (MEASURED BY MODIFIED ISO 8130-6)



MINIMUM CURE TIME GRAPH



APPLICATION PROCEDURES

1. Blast clean to white metal with a nominal 50 micron (2 mil) profile height.
2. Apply optional phenolic primer to dry film thickness of 10-18 microns (0.4-0.7 mils) - see phenolic primer technical data sheets.*
3. Preheat to 149-177°C (300-350°F) (metal temperature).
4. Apply powder coating to the specified film thickness (250-1,500 microns / 10-60 mils).*
5. Fast gel version of 704G is more suitable for Fluidized bed and Standard gel version is suited for electrostatic spray application.
6. Post cure based on the Minimum Cure Time graph. For coating pipe, at least 12 minutes at 232°C (450°F) metal temperature is recommended. Extended post cure time or higher post cure temperatures than the recommended minimum increases chemical resistance, but may also embrittle the coating.
7. Cool in air to room temperature.

Important Note: Cure times vary depending on line conditions. Establish optimum curing conditions for your line by testing. Contact your Sherwin-Williams representative for assistance.

*For NSF certified applications, the maximum approved thickness is 60 mils (1,500 microns), and the maximum approved operating temperature is 60°C / 140°F. Primers may not be used for potable water applications.

COATING REPAIR AND GIRTH WELD:

Damage less than 0.023 m² (36 in²) - Repair using SherPlate PW Green, following the instructions on the data sheet. For girth weld applications, Pipeclad 704G or Dura-Plate 6000 should be used. Other girth weld and repair options are possible with written consent of Sherwin-Williams.

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

WARRANTY

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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