

SELECTION & SPECIFICATION DATA

Generic Type	Solvent-free Aromatic Polyurethane, ASTM D16 Type V
Description	Polyclad 777 R is a high performance, 100% solids structural polyurethane designed to repair Polyclad 777 or 777 PL when it has been damaged. It can be used on steel pipe exteriors, coating girth welds on steel pipe and other repairs as recommended.
Features	<ul style="list-style-type: none"> • Low temperature cure • Quick cure to handle • Superior wetting properties and outstanding adhesion to steel • Excellent edge retention • Mix ratio of 1:1 and user friendly application properties • Up to 80 mils build with a single application • Can be topcoated with Carbothane series of products for long-term color and gloss retention
Color	Standard colors are: Yellow (0600) and Blue (0100)
Finish	Gloss
Primer	None needed - direct to steel.
Dry Film Thickness	30 mils (762 microns) per coat 25-35 mils (625-875 μ) for most applications on steel.
Solids Content	By Volume 100% +/- 1%
Theoretical Coverage Rates	
Theoretical Coverage Rate	1604 ft ² /gal at 1.0 mils (39.4 m ² /l at 25 microns) 53 ft ² /gal at 30.0 mils (1.3 m ² /l at 750 microns) Allow for loss in mixing and application.
VOC Values	As Supplied : <0.04 lbs/gal (5 g/L)* *Calculated value
Approvals	Meets the requirement of AWWA C222-08
Limitations	Due to its aromatic composition, Polyclad 777 R may tend to yellow, darken and chalk in exterior UV exposure. This will not affect performance.
Pot Life	1-2 minutes @ 70 °F

SUBSTRATES & SURFACE PREPARATION

Steel	<p>Remove all contaminants per SSPC-SP1. Abrasive blast to NACE No. 2/SSPC-SP 10 and create 3 to 5 mil (75 to 125 μ) dense angular anchor profile. Remove dust and debris after blasting. Apply Polyclad 777 R prior to any flash rusting or contamination.</p> <p>Patching and Repair Instructions:</p> <p>Small areas of bare steel may be prepared by power tool cleaning to bare metal and creating dense angular profile in accordance with SSPC-SP 11. Feather edge into adjoining sound coating 3 to 6 inches where the repair coating will be overlapped and create a roughened surface by brush-off blast cleaning in accordance with NACE No. 4/SSPC-SP 7, or by hand or power tool cleaning per SSPC-SP2/SP3.</p>
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APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

General	Applicators must be knowledgeable with the proper safety guidelines, operation and maintenance of the spray equipment.
Brush & Roller (General)	<ul style="list-style-type: none"> • Apply to area to be coated • Spread using a no-shed 3/8" roller or brush to the proper thickness
Dual Cartridge	<p>Use only approved dual cartridge spray system such as V O Baker Co CAT HSS System. Contact Carboline Technical Service @ (800) 848-4645 for details.</p> <p>Heat cartridges to 110-120 °F (43-49 °C) Place in dual cartridge gun and add static mixer. Use atomized air set at 40-60 psi as needed. Set delivery speed to medium fast Spray the first small portion to waste or off target test area Spray prepared substrate with the crosshatch pattern to the desired thickness</p>
Single Cartridge	<p>Designed for very small repairs only</p> <p>Will need extra static mixers if cartridge is going to be used more than once To use place cartridge in manual caulking gun Squeeze until mixed material comes out of the static mixer Immediately spread over the repair area using a no-shed 3/8" roller or brush to the proper thickness</p>

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	100°F (38°C)	0°F (-18°C)	35°F (2°C)	0%
Maximum	120°F (49°C)	120°F (49°C)	120°F (49°C)	85%

Industry standards are for substrate temperatures to be 5° F (3° C) above the dew point.

Caution: this product in the liquid stage is moisture sensitive and needs to be protected from high humidity, dew and direct moisture contact until cured to a firm state. Application and/or curing in humidity above maximum, or exposure to moisture from rain or dew may result in a loss of gloss, micro bubbling, and/or blistering of the product.

Note: for applications on concrete, please contact your Carboline Representative for proper application procedures.

CURING SCHEDULE

Curing Details	<p>Dry to Touch (75 °F): 8-10 minutes Dry to Handle (75 °F): 25-30 minutes Lower metal temperatures will slow the dry time and higher metal temperatures will speed up dry times. Polyclad 777 R is ready for holiday testing as soon as it reaches its dry to handle state. Maximum recoat with itself is two hours. Maximum recoat time with Carbothane Series is 28 days. To topcoat after the maximum recoat time, the surface must be cleaned to remove all contaminants per SSPC-SP1. Then abrade to create a roughened surface. Remove dust and debris prior to coating.</p>
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CLEANUP & SAFETY

Cleanup	Use Thinner 2 or 76 solvents. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
Safety	Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation. Keep container closed when not in use.
Caution	This product does not contain flammable solvents, however, clean-up solvents that may be used are flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Packaging	<p>250 mL single cartridge (caulking gun) 1200 mL dual cartridge 1/2 gallon kit 2 gallon kit</p>
Shelf Life	<ul style="list-style-type: none"> • Part A: 12 months • Part B: 12 months • Actual stated shelf life when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	<p>40-110 °F (4-43 °C) 0-100% Relative Humidity</p>
Storage	Store indoors and keep dry. Avoid freezing. Do not open until ready to use.
Shipping Weight (Approximate)	9.4 lbs/gal (4.3 kg/gal)
Flash Point (Setflash)	>200 °F

Polyclad[®] 777R

PRODUCT DATA SHEET



WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.