

PPG RAVEN® 581

DESCRIPTION

Two component, modified polyurethane for use as a manhole chimney seal

PRINCIPAL CHARACTERISTICS

- 100% solids
- Adheres well to properly prepared concrete, steel, aluminum, wood, composites and other substrates
- Withstands high humidity conditions with minimal bubbling or loss of adhesion
- Aromatic polyurethane
- TYPICAL USES:
- Manhole chimney seals
- Concrete waterproofing
- Suitable for use on primed steel/aluminum or direct to steel
- Suitable for OEM applications

COLOR AND GLOSS LEVEL

- Safety yellow
- Semi-gloss

Note:

- Color changes can occur under UV-exposure without negative impact on the product performance

BASIC DATA AT 68°F (20°C)

Data for mixed product	
Number of components	Two
Mass density	8.9 lb/US gal (1.1 kg/l)
Volume solids	100 ± 2%
VOC (Supplied)	EPA Method 24: 0.0 lb/US gal (3.1 g/l)
Theoretical spreading rate	16 ft ² /US gal for 100.0 mils (0.4 m ² /l for 2540 µm)
Dry to touch	3 minutes
Shelf life	Part A: at least 6 months when stored cool and dry Part B: at least 6 months when stored cool and dry

Notes:

- Material should be stored in dry conditions, out of direct sunlight, and in unopened original factory containers, at temperatures above 60°F (16°C) and below 95°F (35°C)
- A single 750 ml kit will cover a typical 12" (31 cm) deep chimney at 100 mils DFT.



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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Masonry portion of manhole

- Remove all rust, dirt, moisture, grease or other contaminants from the surface
 - All areas failed by rusting, peeling, blistering, etc. must be wire brushed and scraped to remove all loose or loosely adhering material
 - All active leaks must be stopped
 - All openings, cracks or voids shall be repaired
 - Chimney surface profile should be reasonably smooth and vertical prior to application of material
 - Repair mortar should be a single component, quick set, high strength, non-shrink, polymer modified cementitious patching mortar that is appropriate for vertical or overhead use
 - Repair mortar shall not contain any chlorides, gypsums, plasters, iron particles, aluminum powder, or gas-forming agents
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Manhole frame casting

- Remove all rust, dirt, moisture, grease or other contaminants from the surface
 - All areas failed by rusting, peeling, blistering, etc. must be wire brushed and scraped to remove all loose or loosely adhering material
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SYSTEM SPECIFICATION

- Recommended pH range for operating conditions is from 3 to 12
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INSTRUCTIONS FOR USE

- Before application, wash down the surfaces of the manhole masonry and frame to remove any remaining moisture, dust or surface contaminants and allow to dry
 - An acetone wash can be used to flash dry the surface
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Application

- This product is packaged in 750 ml x 750 ml cartridges and requires specialized pneumatic spray equipment capable of maintaining consistent force and pressure on the plungers
- One 90° angle spray tip is included per cartridge set
- Discharge both cartridges completely on each manhole chimney to be lined

Note:

- For best results, the cartridges should be heated between 90°F (32°C) and 100°F (38°C)
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ADDITIONAL DATA

Physical data of cured material	
Characteristic	Value
Tensile Strength (ASTM D412/D638)	2,700 psi (18.6 MPa)
Tensile Elongation (ASTM D412/D638)	>600%
Taber Abrasion (ASTM D4060, CS-17 Wheel, 1 kg load, 1,000 cycles)	1.8 mg loss
Tear Strength (Die C, ASTM D624)	284 pli
Hardness, Shore A (ASTM D2240)	80
Hardness, Shore D (ASTM D2240)	30
Shrinkage (ASTM C596, @ 90% relative humidity)	0.8%

Note:

- The value ranges stated in this Product Data Sheet are based on system processing under laboratory conditions. Equipment configurations and/or field application conditions may produce variances in final system values.

DISCLAIMER

- This product is specifically suitable for use on the substrates mentioned in this document. For application on any other substrates, please always contact your distributor or PMC representative for specific instructions and in order to make sure that the product performance can be safeguarded.
- For industrial or professional use only

SAFETY PRECAUTIONS

- Although this is a solvent-free coating, care should be taken to avoid inhalation of spray mist, as well as contact between the wet coating and exposed skin or eyes
- Read all label and Safety Data Sheet (SDS) information prior to use

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES

- Information sheet | Explanation of product data sheets

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