



# DIAMOND PAINT MFG. CO. LTD.

## TECHNICAL DATA

### DIAMOND WATERPROOFING COMPOUND

#### Description:

Diamond Waterproofing Compound is a white resin-rich liquid rubber material applied in multiple coats at 100 square feet per gallon to provide an elastomeric coating that waterproofs and insulates all roofing materials.

#### Features:

1. Applied with standard paint tools .Roller, brush or spray.
2. Ready to use liquid latex -no heating, mixing or solvents for clean-up.
3. Seamless - Self flashing, continuous elastomeric membrane without seams or joints.
4. Fully bonded .Adheres tightly to surface, no wind lifting, no fastening required, no ballast needed.
5. Lightweight .Adds only 12 pounds per 100 square feet to roof load, no ballast required.
6. Flexible and elastic .400% elongation, stays flexible, won't dry and crack from exposure, moves with expansion
7. Reduces heat build-up, highly reflective of sunlight, ceilings and roofs stay cooler.
8. Resists ponded water .won't break down with standing water.
9. Tough .Has exceptional tensile strength, may be reinforced with fibreglass fabric or "scrim" in stress areas or joints.
10. Versatile .Conforms to any shape or configuration, self flashing, adheres to asphalt, metal and masonry.
11. May be applied to damp surfaces, will dry in the presence of moisture.

#### Technical Data:

Product: Diamond Waterproofing Compound  
Type: Latex  
Sheen: Semi-gloss

#### Technical Data:

Colour: White  
Viscosity: Horizontal: **5000 .8000 @ 100 RPM**  
Vertical: **50,000 cps @ 100 RPM**  
Drying to touch: 1-3 hours

Drying to recoat: 6- 12 hours

Tintable: Tint white  
Flash Point: Method ASTM E-84  
Percent of solids by weight: 60  
Spread Rate: @ 20 mls. 90 sq. ft./gallon  
@ 40 mls. 45 sq. ft./gallon

Film Thickness: Dry 10 mls.  
Wet 20 mls.

Solvent: Water  
Thinning: None

#### Limitations:

Not to be applied in coats exceeding 1.6 gallons per 100 square feet per coat - spread uniformly. Excessive thickness or heavy spots will cause extended drying time between coats and improper film formation. Do not apply over previous coats not yet dry .previous coats will lift and cause skins in the film. Surfaces should be clean and free of dust and foreign material. **Diamond Waterproofing Compound** will not adhere to dirt. Do not apply to surfaces below 50°F (10°C). Do not apply when temperatures are below 60°F and humidity is above 75% relative humidity. Avoid application 12-24 hours before rainfall. Avoid ponding on flat roofs. Build-up low areas to ensure proper drainage.

#### Performance Properties:

##### Drying Time

At 75°F - 50% Relative Humidity  
4 Hrs. - Resists Light Rainfall  
12hrs. - Withstands water immersion

##### Physical Properties

Film Former % by volume 50 minutes

##### Adhesive Data 180°F Peel Test Tensile lbs/inch

Yellow Pine - 22.0 Aluminium .20.5  
Glass - 22.0 Steel - 21.3  
Ceramic Tile - 22.0

##### Tensile Data -68°F

Tensile @ break P.S.I. - 172% Film Elongation @ Break .400

Shore A Hardness: 23.6

## Recommended Film Build for Diamond Waterproofing Compound

Metal Deck at seams	25-30 mIs.
Built-up roof	35-50 mIs.
Urethane Insulation	35-50 mIs.
Masonry	15-25 mIs.

**NB. Dry Film build recommendations vary as to condition of substrate and drainage conditions.**

### Coverage:

The coverage that can be expected with a uniform film thickness of Diamond Waterproofing Compound:

**NB.** Coverage listed above are typical for average conditions but may vary somewhat and require adjustment due to condition of substrate, applicator's skill and other factors.

### Application:

**Composition Roofing .Graveled or non-graveled** this system adds many years of life to existing roofs and is easily maintained. It should not be used where the roof is severely deteriorated and will not support or allow **Diamond Waterproofing Compound** to bond.

1. All loose gravel and dirt shall be removed by vacuuming and sweeping. Heavily gravelled roofs may have to be scraped and scarified to remove embedded dirt.
2. On smooth built-up roofs, all delaminations or blistering shall be removed.
3. If moisture is present within the roofing insulation, these areas shall be cut open and exposed to dry. Replace all wet insulation. Replace roofing in these areas.
- 4 Low areas exposed to water ponding shall be built-up.
5. Slope to maintain positive drainage shall be provided.
6. New asphalt surface shall have weathered and dulled prior to application of **Diamond Waterproofing Compound**. This is normally 30-60 days. However, under poor weathering conditions longer periods may be required.

Type Substrate	Dry Film
Asphalt Shingles	15-20 mIs.
Metal Deck (Zinc)	12-15 mIs.

7. Just prior to application, all dust, dirt and other contaminants shall be removed by brushing, vacuuming or power blowing. Rusted metal accessories should be cleaned free of loose rust scale, primed with one coat of metal primer and allowed to dry for 8-12 hours. Clean galvanized metal requires no primer.
8. Termination points, cracks and seams shall be caulked with Diamond Waterproof Putty.
9. After Water Proof Putty has skinned over, **Diamond Waterproofing Compound** may be Applied at a rate of 1 gallon per 100 sq. ft. to an area at least four inches on either side of the waterproof putty bed.
10. A 4" wide mesh fabric tape is embedded into a wet strip of **Diamond Waterproofing Compound** and centered over all joints and flashings in the deck. A brush or roller may assist in this embedding process. A second wet strip of **Diamond Waterproofing Compound** is then coated over the top of the tape.
11. After joints and flashing systems have cured, a minimum two additional coats of **Diamond Waterproofing Compound** shall be applied to flashing areas during coating operation.
12. **Diamond Waterproofing Compound** shall be applied over the roofing surface in multiple coats resulting in a minimum coverage rate of 3 gallons per 100 sq. ft. If rock or gravel is embedded into the asphalt, the amount of **Diamond Waterproofing Compound** required for proper coverage will be nearer to 5 gallons per 100 sq. ft.
13. **Diamond Waterproofing Compound** may be applied by using conventional airless spray equipment as a delivery system. A 30:1 ration airless pump 'A' I.D. material line with a .041: .043 orifice tip may be used for spraying.
14. The best method to assure good penetration of the coating into the decking surface is by application with a medium nap roller.
15. **Diamond Waterproofing Compound** should be allowed to cure properly (approximately 2-8 hours) depending on temperature and humidity conditions) after which an inspection shall take place caulking any defects in the base coat with Diamond Water Proof Putty.

16. Each coat of **Diamond Waterproofing Compound** membrane must be free of all moisture, dirt and debris before additional coats are applied
17. A fully cured multiple coat application of **Diamond Waterproofing Compound** must be applied in a continuous unbroken (closed seal) film of dry thickness of not less than 30 mls. over all areas of the roofing surface. In areas of splits, moving joints including those in metal and composition *flashings*, and all other areas that have excessive movement of dry film thickness of not less than 50 mls
18. Do not apply if rain is imminent within 12 hours.

**Application:**

***Asphalt and Mineral Felt Surfaces***

**Diamond Waterproofing Compound** is a high build elastomeric cross-linked copolymer emulsion which provides exceptional adhesion and flexibility. It is non-toxic, contains no aromatic solvents and dries rapidly. Standard colour is white with custom colours available on request. Clean tools with soap and water.

1. Composite surface shall be dry, clean and free of oil, dirt and other contaminants which could affect bond of **Diamond Waterproofing Compound**.
2. Curled, loose or deteriorated composite roofing shall be removed and replaced with new roofing prior to application.
3. Lifted seams of roll roofing may be bridged by sandwiching mesh fabric between 2 coats of **Diamond Waterproofing Compound**.
4. All water shall be removed from beneath the shingles prior to application.
5. Just prior to application, all dust, dirt and other contaminants shall be removed by brushing, vacuuming, power blowing or high pressure water spraying.
6. Termination points, cracks and seams shall first be caulked with Diamond Waterproof Putty.
7. A 4" wide mesh fabric tape is embedded into a wet strip of Diamond Waterproofing Compound and centered over all joints and flashings in the deck. A second wet strip of **Diamond Waterproofing Compound** is then

applied over the top of the tape.

8. **Diamond Waterproofing Compound** shall be applied over the entire surface in a continuous unbroken (closed seal) film of a dry thickness of no less than 20 mls. over all areas of the roofing surface.

**Application:**

***Metal Roofing and Siding***

**Diamond Waterproofing Compound** for metal provides an outstanding finish because it expands and contracts with metal during the most severe temperature changes. It resists cracking and bonds tenaciously to properly prepared and primed metal. The external specifications outlined are for metal roof surfaces that present the problem of leakage. **Diamond Waterproofing Compound** can also be used in areas requiring exceptional protective coating.

**Diamond Waterproofing Compound** in white will provide a highly reflective surface that will greatly reduce the surface temperature affording a cooler and more energy efficient building.

1. Clean all surfaces free of oil and fungus matter.
2. Lightly rusted or ferrous metal must be primed with Rust Primer at a rate of 400-600 sq. ft. per gallon.
3. Previously painted surfaces which are chalking or have a hard high gloss must be sanded and primed.
4. Clean galvanized metal does not require primer.
5. Joints or perforations in the metal are sealed by sandwiching mesh fabric tape between 2 coats of **Diamond Waterproofing Compound** where required.
6. Apply 1 coat **Diamond Waterproofing Compound** at the rate of 100 sq. ft. per gallon.
7. Do not apply if rain is imminent 12 hour after Application.
8. All termination points, cracks and raised seams shall first be caulked with **Diamond Waterproof Putty**.
9. **Diamond Waterproofing Compound** may be applied over the surface in a single coat using a conventional airless sprayer at a rate of 1 gallon per 100 sq. ft.

## Limited Warranty:

Diamond Paints Ltd. warrants **Diamond Waterproofing Compound** against defect for a period of five (5) years from the date of purchase, provided said material is applied in strict accordance with the Company's printed directions over clean, dry, sound substrates and are used under conditions of ordinary wear. This warranty shall not extend to any defect in or failure of **Diamond Waterproofing Compound** arising from natural occurrences such as, but not limited to lightning, hurricanes, full gales and falling objects or any deliberate act or negligence of the purchaser or other persons in maintaining surfaces to which such materials are applied.

### Caution:

Keep out of the reach of children. Do not take internally. Wear protective eye gear when using this material.

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