



FLUID APPLIED COATING PREPARATION

July 2018

Volume 12, Issue 2 By Bryce Given



About the Author

Bryce Given is manager of operations for CDR. He is certified by the Roofing Consultants Institute as a Registered Roof Observer, a Registered Waterproofing Consultant and a Registered Exterior Wall Consultant.

Contact CDR

206-232-9075
3047 78th Avenue SE
Suite 204
Mercer Island, WA 98040

Copyright 2018

Coatings are used for moisture control, and as bonding agents and weather-proofing on surfaces in new building construction and renovations. Examples of uses include decks, balconies, garage floors, roofing, above grade wall, below grade wall, and under interior floor coverings. Frequently coatings are used to prepare surfaces for finish surfaces or layers of moisture control. Surfaces to receive coatings are usually wood sheathing such as plywood or similar, concrete, metal panels or sheets, or gypsum board.

Common to most coatings is proper preparation of the surface of the substrate. Proper surface preparation supports good coating adhesion, function, performance and durability. Each manufacturer may have different recommendations and requirements for surface preparation. Three key factors common to most installations are a clean, dry and debris-free surface. Clean means no contaminants, oils, greases, chemicals or un-adhered paints remaining on the surface. Dry means usually less than 5 percent moisture content before application of the coating, but this can vary by manufacturer and product. Debris-free means that foreign or loose materials must be removed. In new construction loose materials are often construction

debris, dirt, dust and original systems. For an existing building renovation, debris is usually old building construction remnants, paints and adhesives.

Various methods of preparing surfaces can include: cleaning with solvents, hand or pressure washing, sweeping, mechanical grinding to achieve an acceptable substrate, and air pressure washing such as from a high pressure air hose or media blaster. Generally, pressure washing is not usually recommended because this adds water to the surface and substrate. Building in the Pacific NW often occurs during rainy or freezing weather, causing substrates to become saturated or frozen, further requiring extensive drying or warming to achieve coating-ready surfaces.

Coating failures occur when there is a lack of bond or adhesion to the surface due to an unprepared substrate, poor or incorrect mixing of coating materials, application outside recommended temperature range, or too high of moisture in, on or below the substrate.

Next Page 



JOBSITE SAFETY—NEW DIRECTIVES

After preparing surfaces for coatings, the surface should be tested for its readiness to receive the coating. Sample area applications of the coating may be able to be tested for adhesion by means of pull tests or other methods, and the results analyzed and confirmed for acceptance by the manufacturers and the application contractor.