

EonCoat – Surface (Substrate) Preparation Check List

✓	Step No.	Step detail listed below.
	1	Abrasive blast clean in accordance with SSPC-SP 6/ NACE 3, Commercial Blast Cleaning. All loose scale, oil, grease, dirt, and loose coatings shall be removed before abrasive blasting. All mill scale must be removed. Flash rust is allowed. Minimum surface profile required for EonCoat is 3 mil.
	2	Alternative to abrasive blasting --- All loose scale, large deposits of oil, grease, cutting oils, dirt, coatings and other contaminants shall be removed by water jetting. (40,000 psi.) Per SSPC-SP WJ-1/NACE WJ-1 clean to bare substrate UHP WJ with 3.1.3 moderate flash rust.
	3	Inspect surface after abrasive blasting in accordance with SSPC-PA 17 and ASTM D4417 – i.e., confirm surface mil profile.
	4	Pressure wash after dry abrasive blast cleaning to remove all blasting residues from the structure. (5,000 psi pressure washer with no detergent or chemicals.)
	5	After pressure washing, blow dry (with compressed air) any puddles, crevices, seams and areas that may hold water.
	6	Surface temperature of substrate should be minimum 50°F and maximum 110°F to apply EonCoat.

Step 1 and 2:

- A commercial blast cleaning of unpainted or painted steel surfaces by the use of abrasives.
- These requirements include the end condition of the surface and materials and procedures necessary to achieve and verify the end condition.
- A commercial blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products, and other foreign matter, except for staining as noted.
- Waterjet cleaning to achieve the Clean to Bare Substrate (WJ-1) degree of surface cleanliness is used when the objective is to remove every trace of rust and other corrosion products, coating, and mill scale. Discoloration of the surface may be present.
- Waterjet cleaning does not provide the primary anchor pattern on the metallic substrate known as “surface profile.” The coatings industry uses waterjet cleaning primarily for recoating or relining projects in which there is an adequate pre-existing surface profile. Note that waterjet cleaning does not remove mill scale.

NOTE: If there is no existing profile (3 mil or greater) proceed to abrasive blasting.

Step 3:

- SSPC-PA 17, Procedure for Determining Conformance to Steel Profile/Surface Roughness/Peak Count Requirements: This new standard is intended for use by specifiers and contractors. It provides a method for

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determining whether the profile of a steel surface is in conformance with project specifications when using the instruments and procedures contained in ASTM D 4417 and D 7127.

- Requirements for frequency and location of instrument readings and evaluation criteria to ensure that the profile over the entire prepared surface complies with project requirements are included.
- The height of surface profile has been shown to be a factor in the performance of various coatings applied to steel. For this reason, surface profile should be measured prior to coating application to ensure that it meets that specified. The instruments described are readily portable and sufficiently sturdy for use in the field.
- Testex is the manufacturer of Press-O-Film replica tape. Press-O-Film provides inspectors and researchers a simple way to obtain an impression of a surface. Press-O-Film (POF) consists of a layer of crushable plastic microfoam coated onto a polyester film of highly uniform thickness.
- When compressed against a roughened material, Press-O-Film accurately replicates details of its surface roughness. The impression can be studied in several ways: A digital thickness gage such as the PosiTector RTR can also field-measure profile and bridge the gap between tape grades by incorporating automatic linearization.



Step 4:

Pressure Washing Procedure

- Hold pressure washer wand approximately 18 inches from substrate being washed.
- Keep the pressure washing wand straight or at as little of an angle as possible.
- Flush as evenly as possible, working a pattern so that no area will be missed.
- Flush out all crevices, seams, and any areas that can hold any blasting media or contaminants.
- After pressure washing, blow dry any puddles, crevices, seams and areas that may hold water.
- Use only clean and dry compressed air when drying. Air that is not clean and dry may re-contaminate the substrate and pressure washing process would have to be repeated.