Cold Bond Application Procedures

SA 2000+, SA 4000+, ECRF, WECRF & PVC

The key to a successful bonding process lies in the preparation of the surfaces to be bonded. The following information details the correct procedures necessary to achieve the optimum results in the use of FUSION Cold Bond Adhesives.

PREPARATION:

METAL

1. All surfaces must be clean, dry and free of oil, and other contamination.
2. Remove all weld splatter, sharp edges or irregularities in the metal surface by grinding.
3. Degrease surface if contaminated by oil or grease using **Fusion Wipes** or cloth rag, lightly dampened with **RC Fusion Surface Prep** solvent. Do not saturate.
4. Steel and other metallic surfaces should be sandblasted to a 4 mil profile (SSPCV-SP-5-63 "White Metal Blast Cleaning") to obtain maximum adhesion. Methods such as grinding with a course grit grinding disc or stiff wire brush can be used but bond strengths will be reduced.
5. Remove all traces of dust and residue by vacuuming or dry brushing. Take care to avoid contaminating surface during and after cleaning with dust, fingerprints, moisture, oils, etc.
6. Clean surface to remove all contaminates using **Fusion Wipes** lightly dampened with **RC Fusion Surface Prep** solvent. Do not saturate.
7. Prime surface immediately after sandblasting and cleaning operation with Fusion cements (**ECRF, SA2000+, SA4000+, WECRF** or **PVC**) or **Fusion RM** metal primer using a brush or roller. Surfaces primed with ***Fusion cements*** should be bonded within 24 hours, surfaces primed with Fusion **RM** metal primer can wait as long as 7 days. All primed surfaces should be protected from direct sunlight and any type of contamination.
8. Primed surface must be completely dry before bonding operation can begin. Fusion cements (1 hour) -Fusion **RM** primer (15 minutes).
9. See bonding procedures.

RUBBER – **without Bonding Layer**

1. Clean surface to remove all contaminates from new or used rubber surface. Clean with **Fusion Wipes** dampened with **RC Fusion Surface Prep** solvent. Do not saturate.
2. Buff rubber surface with a slow speed 1200-4000 RPM buffer using a course (16-24 grit) buffing wheel or disc. Keep tool moving and with light pressure to obtain a uniform buffed surface. Avoid burning or melting of the surface.
3. Remove buffing dust with a stiff dry brush followed by a light wipe with **Fusion Wipes** dampened with **RC Fusion Surface Prep** solvent. Do not saturate.
4. Prime surface with Fusion cement (**SA 2000+, SA 4000+, ECRF, WECRF** or **PVC**) using a stiff brush and a circular scrubbing motion. A scrubbing motion is preferred so that all voids on the buffed-rubber-surface-to-be-bonded are filled in. Apply a uniform thin coat of Fusion cement and allow to completely dry, 1 hour (overnight is ideal). Protect primed surface from any type of contamination.
5. See bonding procedures.

RUBBER – **with Bonding Layer**

1. Remove protective plastic cover off bonding layer (no solvent wiping is needed on fresh bonding layer). If surface is old or contaminated vigorously wipe bonding layer surface with **RC Fusion Surface Prep** dampened **Fusion Wipes** to remove all surface contaminates and oxidation of rubber surface. Do not saturate rubber (over-application of solvent to bonding surface, will greatly reduce bond strengths).
2. See bonding procedures.

FABRIC

1. Using a stiff dry brush, clean the surface to remove all contaminates. If surface is heavily contaminated use **Fusion Wipes** very lightly dampened **with RC Fusion Surface Prep solvent**. Do not saturate (over-application of solvent to fabric surface, will greatly reduce bond strengths).
2. Do not buff rubber from surface of steps unless the fabric is heavily contaminated do not damage fabric by over buffing.
3. Remove buffing dust with a stiff dry brush (do not apply solvent to buffed fabric surface, as it will greatly reduce bond strengths).
4. Prime fabric with FUSION CRF or ECRF cement using a stiff cement brush and a circular scrubbing motion to work the cement into the fabric. Apply a

uniform coat and allow to dry completely, 1 hour minimum, overnight is ideal. Some fabrics may require two coats (heavy, course weaves). If two prime (dry) coats are needed, the second coat can be applied when the first coat has dried, about 1 hour. The second coat should not be scrubbed because the solvent in the cement would attack and lift the first coat. This is more evident when the first coat has a short drying time. Protect the primed surface from any type of contamination.

5. See bonding procedures.

BONDING PROCEDURES

AT THIS POINT ALL SURFACES ARE CONSIDERED TO BE PRIMED OR HAVE A BONDING LAYER.

BONDING

1. To the properly prepared or primed surfaces apply a tack coat of Fusion Cement (SA 2000+, SA 4000+, ECRF, WECRF or PVC) to each surface at the same time so they dry at the same rate. As rapidly as possible, apply a uniform coat with a brush or roller avoiding heavy builds, puddles, uneven coating. Surfaces must dry uniformly.
2. When surfaces dry to a tack, about 3-6 minutes for most, 8-10 minutes for ECRF, they are ready to bond. This bonding time will be about 10-15 minutes, if the surfaces become too dry, apply another tack coat to each. Test the cement with the back of a dry finger, it should feel tacky and not leave any cement on the finger. SURFACES MUST BE TACKY WHEN BONDED. Join surfaces together when the cement is still tacky but not wet to the touch. and roll with a 2" wide roller with appropriate pressure to bond surfaces together. Use overlapping roller strokes, making sure both surfaces fully contact each other, and all air is expelled.
3. On conveyor belt splices, after rolling, stitch with FUSION (HT-STD) double action stitcher (sized to the belt) with firm pressure starting in center of splice area and working over entire area. Use overlapping strokes making sure both surfaces fully contact each other, and all air is expelled.