SC2000 CEMENT BONDING PROCEDURES

Widely recognized as the world's finest cold vulcanizing cement REMA SC2000 is the solution to your industrial bonding problems. By using REMA UTR20 hardener with the SC2000 cement natural rubber, neoprene rubber, SBR rubber and others can be bonded to each other, fabric and to steel without the aid of heat, pressure or special equipment.

Description
REMA SC2000 is a two component, room temperature curing chloroprene based liquid rubber adhesive that, when catalyzed with the appropriate amount of UTR20 Hardener, yields high strength adhesions. REMA SC2000 is ideal for use in lining installations, when bonding rubber to rubber, rubber to fabric, rubber to steel, rubber to concrete, fiberglass, and urethane, as well as the splicing and repair of fabric conveyor belting. Repair to existing rubber lined vessels and rubber components are also recommended.

Industry

Mixing instructions
The REMA SC2000 cement system is comprised of cement and hardener in the ratio of 1 Kg of cement to 40 grams of hardener. These two components must be thoroughly mixed (stirred). The mixed portion should be used within 2 hours.

General Rubber Lining Environmental Conditions
Before any sandblasting, application of metal primer, adhesives or application of lining material the ambient temperature and that of the substrate must be at least + 50° Fahrenheit with a maximum temperature of + 104° to +113° Fahrenheit.

The Relative Humidity should not exceed 80% during the entire lining procedure.

The substrate temperature must be a minimum of 5 degrees higher than that of the dew point. Relative humidity, ambient temperature, substrate temperature and dew point must be recorded prior to start of project and at three hour intervals thereafter.

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Surface Preparation & Application Methods

Rubber to Steel

All surfaces must be clean, dry and free of oil, paint and other contamination. Steel and other metallic surfaces should be sandblasted to a 2-mil blast profile (SSPC-SP10 "Near White Metal Blast Cleaning") to obtain maximum adhesion. A brushing application to all substrates is the preferred method to avoid possible bridging of a high profile surface. Metal surfaces should first be cleaned with REMA solvent and then sandblasted and cleaned again with REMA solvent. After the surface is prepared it should be primed with Rema PR200 Metal Primer. The primer should be allowed to dry completely, approximately 1 hour depending upon atmospheric conditions. After allowing the prime coat to cure or dry for at least 1 hour, proceed with bonding procedures.

Fiberglass

The surface should be prepared by first cleaning with REMA solvent, then sanded, and re-cleaned with REMA solvent to help remove abraded particles. Allow the solvent to evaporate. Then the prepared surface must then be primed with REMA SC2000 cement. The prime coat of cement should be allowed to completely cure at least 1 hour (overnight is ideal). After allowing the prime coat to cure or dry for at least 1 hour, proceed with bonding procedures.

Rubber to Rubber

The surface should be prepared by first cleaning with REMA solvent to remove all mould releases. Rubber that does not have the special REMA CN bonding layer, requires cleaning with REMA solvent and when dry, buffing to a RMA #4 textured finish. The rubber dust should be removed with a dry brush and then wipe the surface with REMA solvent again before the prime coat (dry-coat) of REMA SC2000 cement is applied to the prepared surface. The applicator should use a scrubbing-like motion when applying the REMA SC2000 cement. A scrubbing motion is preferred so that all voids on the buffed surface to be bonded are filled in. After allowing the prime coat to cure or dry for at least 1 hour (overnight is ideal) proceed with bonding procedures.

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Concrete

The best surface preparation for concrete is sandblasting to provide a clean, dry and sound substrate. When sandblasting is not practical, the surface may be acid etched following the manufacturer's recommendations. After sandblasting or etching, the surface must be primed with REMA SC2000 cement. For ease of application the prime coat could be roller applied by diluting the REMA SC2000 cement with REMA #13 solvent, about 25%. This dilution will assure better absorption. The second coat (dry-coat) of REMA SC2000 cement must not be diluted for optimum adhesion.

Wood

The best surface preparation for wood is sandblasting. Wood must be dry. After sandblasting, the surface must be primed with REMA SC2000 cement. For ease of application the prime coat could be roller applied by diluting the REMA SC2000 cement with REMA #13 solvent, about 25%. This dilution will assure better absorption. The second coat of REMA SC2000 cement must not be diluted for optimum adhesion.

Fabric to Fabric

Fabric that is R.F.L. treated should be clean and dry and the number of coats of REMA SC2000 cement will depend on the weight and weave of the fabric. Take special care to insure all indentations are filled (such as heavy conveyor belt fabric).

Bonding

When applying the REMA SC2000 cement a scrubbing motion is preferred so that all voids on the surface to be bonded are filled in. The first coat of cement should be allowed to completely cure at least 1 hour (overnight is ideal) before the second coat, or “tack coat” is applied. To the properly prepared or primed surfaces apply a tack coat of REMA SC2000 cement 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. Avoid heavy builds, puddles, uneven coating. Surfaces must dry uniformly. When surfaces dry to a tack, about 3-6 minutes, they are ready to bond (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.

Bonding (continued)
SURFACES MUST BE TACKY WHEN BONDED. Join surfaces together when the cement is still tacky but not wet to the touch. Roll with a 2" wide roller (stitcher) with appropriate pressure to bond surfaces together. Use overlapping roller strokes making sure both surfaces fully contact each other and all air is expelled.

For additional information Contact your REMA TIP TOP rubber specialist.

Bond Evaluation
REMA SC2000 is capable of bonding rubber to steel in the range of 60-70 lbs. peel per inch width. Bond strengths of fabric to fabric, such as fabric conveyor belting, can develop over 500 lbs. in shear.

Bond strengths measured in Lbs. per Inch peel strength

	2 hrs	5 hrs	12 hrs	24 hrs	7 days
Rubber to Steel	60	63	64	65	72
Rubber to Rubber	24	29	34	40	60
Fabric to Fabric	20	24	25	28	32
Rubber to Fabric	18	24	26	28	55

Pot Life
The gel time or working life of mixture is approximately 2 hours at 70° F.

Coverage
Approximately 22 to 27 sq. ft. per 1 kg./ per coat by brush coating.

Physical Properties

Color:	Black
Weight per Gallon:	11 lbs.
Consistency:	Brushable liquid
Diluents:	Trichloroethylene
Oil Resistance:	Excellent
Application Temp.:	+50° to 113° F. (+10° to +45° C.)
Maximum Constant Operating Temp.:	212° F. (100° C.) Rubber to Metal 176° F. (80°C.) Rubber to Rubber 176 F. (80 C.) Rubber to Fabric

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Storage

Shelf life of unopened containers is 4 years. REMA SC2000 cement and hardener should be stored in a cool dark place away from heat, sparks and flame under 70° F (20° C).

Safety

REMA SC2000 contains solvents; the inhalation of excessive amounts of vapor may induce an allergic respiratory reaction to sensitized individuals. Proper respiratory protection must be used. Avoid skin contact. Wear protective clothing, impervious rubber gloves, and safety glasses. In case of skin contact, wash well with soap and water. Spills should be absorbed with absorbent material and water added to destroy isocyanates. When applying REMA SC2000 cement in confined areas, suction ventilation equipment should be in operation. The equipment should be arranged so that vapors are drawn down and away from the applicator. REMA SC2000 cement is non-flammable. The UTR20 Hardener is flammable although when mixed together they become non-flammable. As always the usual fire safety measures should be observed. Keep away from heat, sparks and open flame. Do not use until the MATERIAL SAFETY DATA SHEET and INSTRUCTIONS have been read and understood.

Industry

Packaging Sizes and Hardener Amounts

- 1 Pt. REMA SC2000 cement with one 20 gram UTR20 Hardener
- 1 Qt. REMA SC2000 cement with one 40 gram UTR20 Hardener
- 1 Gal. REMA SC2000 cement with five 40 gram UTR20 Hardener
- 55 Gal. REMA SC2000 with (275) 40 gram UTR20 Hardeners

The recommendations for the use of our products are based on tests believed to be reliable but no warranty is given. Since conditions of use are beyond our control the user assumes all risks of use.

For Technical Assistance and Professional Advice
Please Contact your Local REMA Agent or Call (800) 334-REMA

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