



CSP SPORTS AND REC

A division of Child Safe Products, Inc.

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POURED-IN-PLACE SAFETY SURFACE

DESCRIPTION

Resilient, water permeable, synthetic rubber playground safety surface system comprised of polyurethane binders, processed SBR rubber particles, and EPDM rubber granules installed over a variety of suitable bases at a compacted thickness of 1 ½ to 4 inches to comply with the Consumer Products Safety Commission guidelines.

MATERIALS

- A. **BLACK SBR** – The rubber particles for the cushion base mat shall be SBR rubber buffings processed from recycled tires, 6-16 mesh size, containing less than 4% dust and having a density of 1.13 + or – 0.05. The rubber shall be packed in suitable bags to protect the rubber from moisture during transportation and handling.
- B. **EPDM RUBBER** – The colored rubber granules for the top layer shall be EPDM peroxide cured, man made rubber containing a minimum 20% EPDM and having a density of 1.50 + or – 0.05 and chopped to 1-3 mm. size. The EPDM rubber granules shall be protected from moisture as described above.
- C. **POLYURETHANE BINDER** – Binder for the Child Safe Products Safety Surface System shall be an MDI based one component, polyurethane binding agent. The binder shall not have a free TDI monomer level above 0.8%, must be clear in color, and must be solvent free. The binder shall be specially formulated for compatibility with SBR and EPDM rubber granules. Specific gravity for the binder shall be 1.07 + or – 0.03.

MIXTURE COMPOSITIONS

Job mix formulas shall be as follows:

A. BLACK SBR CUSHION BASE

SBR rubber particles	87% by weight
Polyurethane Binder	13% by weight

B. COLORED EPDM TOP LAYER

Colored EPDM rubber granules 1-3 mm. 80% by weight
Polyurethane Binder 20% by weight

INSTALLATION

The following procedures shall be followed to ensure a quality installation of the playground safety surface.

WEATHER

CHILD SAFE PRODUCTS SAFETY SURFACE can be installed when the weather is at a temperature of 40° and steady. No installations can be made when the forecast calls for freezing temperatures.

BASES

CHILD SAFE PRODUCTS SAFETY SURFACE system can be installed over concrete, asphalt, compacted crushed stone, sand, pea gravel, and existing flooring systems.

New concrete bases shall be allowed to cure a minimum 3 days and new asphalt bases shall be allowed to cure a minimum 7 days prior to installation of the safety surface.

Crushed stone, sand and pea gravel bases shall be checked for planarity and proof compacted prior to installation.

PRIMER

All hard bases shall be coated with an approved polyurethane tack coat at the rate of 0.06 gal./sy applied by either a short nap roller or airless spray equipment. Make primer by mixing small amounts of urethane with the same amount of mineral spirits.

GEOTEXTILE FILTER FABRIC

Crushed stone, sand, or pea gravel bases shall be covered with a support/filter fabric such as AMOCO 4545 or equal. All seams shall be overlapped a minimum 4 inches.

CUSHION BASE LAYER

The shredded SBR rubber and polyurethane binder shall be blended together at a ratio of 87/13 in a mechanical mixer until all particles of rubber are coated with the binder. The blended materials are then spread onto the prepared base and leveled to the proper thickness using gauge bars equal to the

required thickness. After the material has been leveled it shall be finished to a smooth surface and compacted using steel trowels. Curing time is dependent on temperature and humidity and can vary from 2 to 24 hours. On occasions of low humidity it is advised to fog the completed surface with water to aid the curing process. When the surface can be walked on without leaving depressions, it has cured enough to proceed with the installation of the EPDM top layer.

EPDM TOP LAYER

The colored EPDM rubber granules and binder are blended together at a ratio of 80/20 in a mechanical mixer until all the EPDM rubber granules are coated with binder. The blended material is then spread onto the cured cushion base and leveled to the proper elevation using gauge bars equal to the required thickness. Curing time is the same as described above for the cushion base. It is recommended to allow an additional 24 hours curing time prior to opening the area to play.

POROSITY

Material shall be porous as to allow water to percolate at the rate of 10 gallons per minute per square foot.

CLEANUP

On completion of the surface, remove all excess materials, and properly dispose of all empty containers and construction debris.