

VEL

SBR

SBR LATEX FOR
WATERPROOFING,
BONDING & REPAIR

HIGH-PERFORMANCE
STYRENE BUTADIENE RUBBER
(SBR) LATEX ADMIXTURE



BONDING PROPERTIES OF CEMENT-BASED MORTARS AND CONCRETE



SBR LATEX
BASED



FOR INTERNAL
& EXTERNAL



NO LEAKAGES



REDUCE
CRACK



MULTI-PURPOSE



LOW VOC

DESCRIPTION

VEL-SBR is a high-performance Styrene Butadiene Rubber (SBR) latex admixture developed by Velwiin Chemicals to improve the strength, durability, and bonding properties of cement-based mortars and concrete. It is specially formulated to enhance adhesion between new and existing concrete, reduce permeability, and increase resistance to water penetration, abrasion, and shrinkage.

When mixed with cementitious materials, VEL-SBR forms a tough polymer-modified matrix that improves flexibility, tensile strength, and overall durability. It is suitable for a wide range of construction applications including waterproofing screeds, repair mortars, bonding coats, floor toppings, plaster modification, and concrete repairs.

VEL-SBR is recommended for both interior and exterior applications where improved mechanical performance and long-term protection are required.

FEATURES AND ADVANTAGES

VEL-SBR is formulated to enhance the performance of cement-based materials by improving adhesion, durability, and resistance to environmental conditions.

- Premium polymer latex for cement modification.
- Significantly improves bond strength between old and new concrete.
- Increases tensile, flexural, and compressive strength of mortar.
- Reduces water permeability and minimizes moisture penetration.
- Improves resistance to cracking caused by drying shrinkage.
- Enhances flexibility and impact resistance of cementitious mixes.

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- Provides excellent resistance to abrasion and surface wear.
- Improves workability without increasing the water content.
- Reduces dusting and surface deterioration.
- Offers superior adhesion on concrete, brick, plaster, masonry, and stone substrates.
- Suitable for both indoor and outdoor construction applications.
- Compatible with cement-based repair mortars, screeds, plaster, and bonding coats.
- Improves long-term durability in demanding service conditions.
- Helps produce dense, strong, and low-permeability cementitious systems.

RECOMMENDED APPLICATIONS / AREAS OF USE

VEL-SBR is designed to improve the performance of cementitious systems in both new construction and renovation projects. It is suitable for a wide range of repair, waterproofing, and bonding applications.

Recommended Applications

- Concrete repair mortars
- Polymer-modified cement mortars
- Bonding slurry between old and new concrete
- Waterproof cementitious coatings
- Floor screeds and levelling layers
- Internal and external plaster modification
- Tile bedding and fixing mortars
- Concrete floor toppings
- Brick and block masonry repairs
- Structural and non-structural patch repairs
- Water-retaining structures
- Balconies, terraces, and wet areas
- Basements and retaining walls
- Precast concrete repair works

Suitable for:

- Cement concrete
- Brick masonry
- Cement plaster
- Stone masonry
- Concrete blocks
- RCC structures
- Screeds
- Cement-based renders
- Repair mortars

Typical Uses

Enhancing adhesion between existing and fresh concrete.

Preparing polymer-modified repair mortars.

Producing waterproof cement screeds.

Improving the durability of plaster and render.

Repairing damaged concrete edges and honeycombs.

Increasing abrasion resistance of industrial flooring.

TECHNICAL INFORMATION

Property	Specification
Product Type	Styrene Butadiene Rubber (SBR) Latex Admixture
Appearance	Milky White Liquid
Base	Styrene Butadiene Copolymer
Specific Gravity	Approx. 1.00 – 1.05
pH Value	8.0 – 10.0
Viscosity	Low Viscosity Liquid
Solubility	Completely Miscible with Water
Application Temperature	+5°C to +45°C
Drying Characteristics	Air Drying
Film Properties	Flexible and Tough Polymer Film
Chloride Content	Nil
Toxicity	Non-Toxic (When Used as Recommended)

PERFORMANCE CHARACTERISTICS

- Excellent adhesion to cementitious substrates.
- Improves compressive, tensile, and flexural strength.
- Reduces permeability and water absorption.
- Increases abrasion and impact resistance.
- Minimizes shrinkage cracking.
- Enhances flexibility of cement mortar.
- Improves resistance to freeze-thaw cycles.
- Provides excellent durability in wet and dry service conditions.
- Compatible with Ordinary Portland Cement (OPC) and blended cements.
- Suitable for both interior and exterior construction applications.

TYPICAL MIXING RATIO (GENERAL GUIDE)

Application	Suggested Mix
Bonding Slurry	Cement : VEL-SBR = 1 : 1 (by volume)
Repair Mortar	Cement : Sand = 1 : 3 with VEL-SBR diluted in water as required
Waterproof Screed	Cement : Sand = 1 : 3 with recommended dosage of VEL-SBR

Note: The above values are typical product characteristics and general application guidelines. Actual performance depends on substrate condition, mix design, curing practice, ambient temperature, and site workmanship. Trial applications are recommended before large-scale use.

SURFACE PREPARATION & APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Proper surface preparation is essential to achieve maximum adhesion and long-term durability.

- The substrate should be structurally sound, clean, and free from dust, oil, grease, paint, laitance, curing compounds, and other contaminants.
- Remove all loose or damaged concrete, plaster, and weak surface layers before application.
- Repair cracks, honeycombs, and defective areas prior to applying the bonding coat or repair mortar.
- Pre-wet absorbent cementitious surfaces with clean water and allow excess water to disappear. The surface should be in a Saturated Surface Dry (SSD) condition before application. Steel reinforcement, if exposed, should be cleaned thoroughly to remove rust and corrosion.

BONDING SLURRY APPLICATION

- Prepare a bonding slurry by mixing VEL-SBR with cement until a smooth, lump-free consistency is achieved. Apply the slurry uniformly using a brush or suitable applicator.
- Place the repair mortar or fresh concrete while the bonding coat is still tacky.
- Do not allow the bonding slurry to dry completely before applying the mortar.

POLYMER MODIFIED MORTAR

- Mix cement and graded sand in the specified proportion.
- Dilute VEL-SBR with clean water according to the required application.
- Add the liquid mixture gradually into the dry ingredients.
- Mix thoroughly until a homogeneous, workable mortar is obtained.
- Apply the mortar immediately and compact well to eliminate air pockets.
- Finish the surface as required using appropriate finishing tools.

WATERPROOF SCREED / PLASTER

- Use VEL-SBR as a polymer modifier in cement-sand screeds or plaster.
- Spread the mortar evenly and compact properly.
- Cure the applied material according to standard construction practices for optimum performance.

APPLICATION GUIDELINES

- Apply only when the ambient and substrate temperatures are between 5°C and 45°C.
- Protect freshly applied material from direct sunlight, rain, frost, and rapid drying.
- Ensure adequate curing of all cementitious applications.
- Clean tools and equipment with water immediately after use before the material hardens.

Important: Always prepare only the quantity of modified mortar that can be used within its workable period. Proper mixing, application, and curing are essential to achieve the best performance from VEL-SBR.

COVERAGE, PACKAGING, STORAGE, SAFETY

Coverage

The actual coverage of VEL-SBR depends on the application method, substrate condition, surface roughness, and mix proportion used.

Application	Approximate Coverage
Bonding Slurry	4–6 m ² per litre (single coat)
Polymer Modified Mortar	Depends on mortar thickness and mix design
Waterproof Screed	Depends on screed thickness and site conditions

Note: Coverage values are indicative only and may vary according to substrate porosity, surface profile, workmanship, and material consumption.

PACKAGING

VEL-SBR is available in the following standard pack sizes:

500gm | 1 kg | 5 kg | 10 kg | 20 kg | 50 kg

Custom packaging can be provided on request.

STORAGE

- Store in the original, tightly sealed container.
- Keep in a cool, dry, and well-ventilated place.
- Protect from direct sunlight, excessive heat, and frost.
- Do not allow the product to freeze.
- Keep containers tightly closed when not in use.

SHELF LIFE

- 12 Months from the date of manufacture when stored in unopened original packaging under recommended storage conditions.

HEALTH & SAFETY

- Wear suitable protective gloves, safety goggles, and protective clothing during handling. Avoid prolonged contact with skin and eyes.
- In case of skin contact, wash thoroughly with soap and clean water.
- If the product enters the eyes, rinse immediately with plenty of clean water and seek medical advice if irritation persists.
- Do not swallow the product. Keep out of reach of children.
- Ensure adequate ventilation during application.
- Dispose of empty containers in accordance with local environmental regulations.

DISCLAIMER

The information contained in this Technical Data Sheet is based on laboratory testing and practical application experience. Since site conditions, methods of application, workmanship, and environmental factors are beyond the control of Velwiin Chemicals, no warranty can be given regarding the final performance of the product under all circumstances. Users are advised to carry out suitability trials before large-scale application. Velwiin Chemicals reserves the right to modify product specifications without prior notice as part of its continuous product development program.

Manufactured By : Velwiin Chemicals

Laxmi Industrial Estate, Near Laxmi Weighing Bridge,
Khokhra Hanuman Road, Bela, Morbi, Gujarat, India -
363642.

Mobile : +91 99097 75135

Email : velwiinchemicals@gmail.com

Website : www.velwiin.com