

CHEMFIT BOND DV

Synthetic Rubber Emulsion for Cement Mortars where Good Adhesion and Water Resistance are Required – For Thin Layer Patching Mortars, Renders, Screeds, Repair Mortars & Tile Fixing

PRODUCT DESCRIPTION

ChemFit Bond DV is a high-performance, synthetic rubber emulsion (styrene butadiene) specifically formulated as a bonding agent and admixture for cement mortars. It is simply added to the mixing water to significantly improve adhesion, water resistance, abrasion resistance, and reduce shrinkage. This versatile, single-component liquid enhances the properties of site-mixed cementitious mortars, creating durable, waterproof repairs and overlays.

PRIMARY APPLICATIONS

ChemFit Bond DV is recommended for use in conditions such as:

- Thin layer patching mortars
- Renders and waterproof renders
- Floor screeds and cementitious toppings
- Concrete repair mortars
- Abrasion resistant linings
- Tile fixing mortars
- Masonry mortars
- Bonding slurry for bonding fresh concrete to old concrete

KEY FEATURES AND BENEFITS

- **Improved adhesion** – Excellent bond to concrete, masonry, stonework, plaster, and blockwork
- **Enhanced water resistance** – Creates waterproof repairs, renders, and toppings
- **Reduced shrinkage and cracking** – Increases mortar flexural strength and reduces cracking
- **Increased abrasion resistance** – Ideal for high-traffic floors and industrial applications
- **Improved chemical resistance** – Resists aggressive chemicals, acid gases, and water
- **Workability** – Improves cohesion and workability of cement mixes
- **Versatile** – Compatible with all common hydraulic cements
- **Single component** – Easy to use, just mix with water
- **Economical** – Provides high performance at a low cost

PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Liquid
Color	White / Milky White
Form	Ready-to-use liquid
Basis	Styrene Butadiene Rubber (Synthetic Rubber)
Specific Gravity	1.00 – 1.04 kg/L @ 25°C
pH Value	6.0 – 8.0
Chloride Content	Nil
VOC Content	Low
Freezing Point	0°C (protect from freezing)
Application Temperature	+5°C to +50°C (hot climates suitable)

PACKAGING AND STORAGE

Packaging:

- 25 L pails
- 200 L drums

Storage:

- Store in original sealed containers at +5°C to +35°C
- Protect from direct sunlight, frost, and extreme heat
- Keep container tightly closed when not in use
- If frozen, thaw completely and agitate before use

Shelf life: 12 months from date of manufacture when stored properly

DOSAGE AND COVERAGE RATES

As a Bonding Slurry:

- Mix Ratio (by volume) – Bond DV : Water = 1 : 1. Mix with cement and fine sand to a brushable consistency.
- Coverage – Approximately 4 – 5 m² per liter of mixed slurry, depending on substrate porosity.

As a Mortar Admixture (Neat):

- For Bonding Slurry – Use Bond DV diluted with water (1:1) as the gauging liquid for cement and sand.
- For Renders & Screeds – Add Bond DV to the mix water. Typical dosage: 5 – 10 liters per 50 kg bag of cement.

For Waterproofing & High Strength – Use Bond DV neat as the gauging liquid.

Typical Mix Proportions (by volume):

Application	Bond DV	Water	Cement	Sand
Bonding Slurry	1	1	2	2
Render / Screed	0.5	0.5	1	2-3
Repair Mortar	1	0	1	2

NOTE: Coverage rates are approximate and vary based on substrate porosity, surface texture, and application method. Always prepare a trial mix to verify suitability for specific conditions.

APPLICATION GUIDELINES

Surface Preparation:

- Substrate must be clean, sound, and free from dust, oil, grease, laitance, curing compounds, loose particles, and any contaminants
- Concrete: mechanically abrade (grinding, shot blasting, scabbling) to achieve open texture
- Steel: remove rust, scale, and oil by sandblasting or wire brushing
- Pre-soak the substrate with clean water to achieve saturated surface dry (SSD) condition. Remove any standing water before application

Mixing:

- For bonding slurry: mix Bond DV, water, cement, and sand to a brushable consistency
- For mortar admixture: dilute Bond DV with water (typically 1:1) and use as gauging liquid
- Mix with low-speed drill and mixing paddle (400-600 rpm) for 2-3 minutes until uniform, lump-free consistency
- Scrape sides and bottom during mixing
- Do not add additional water beyond the recommended ratio

Application:

- Apply bonding slurry by brush or stiff broom onto the prepared surface
- For bonding new concrete to old, apply slurry and place new concrete while slurry is still tacky
- For repair mortars and renders, apply by steel trowel and finish with a wooden float
- For vertical and overhead applications, apply in thin layers (max 15-20mm) to prevent sagging
- For deeper repairs, apply in multiple layers

Curing:

- Protect from rapid moisture loss, direct sunlight, wind, and extreme temperatures
- Maintain moist curing for a minimum of 3 days (7 days for critical applications)
- For hot weather, apply curing compound or cover with plastic sheeting
- Do not apply below +5°C or when temperatures expected to drop below +5°C within 24 hours

HEALTH AND SAFETY

ChemFit Bond DV may cause mild eye and skin irritation. If eye contact occurs, rinse with water for 15 minutes and seek medical attention if irritation persists. For skin contact, wash with soap and water. If swallowed, do not induce vomiting; rinse mouth and drink water, then seek medical advice. Use gloves, safety glasses, and protective clothing during handling. Ensure adequate ventilation when using in enclosed spaces. Refer to the Safety Data Sheet for detailed information.

CLEANSING OF TOOLS

Clean all mixing equipment, brushes, trowels, and spillages with water immediately after use. Dried material may require mechanical removal. Dispose of cleaning materials in accordance with local regulations.

APPROVALS AND STANDARDS

ChemFit Bond DV conforms to the following standards:

- **ASTM C1059 / C1059M** – Type II (Latex-Based Bonding Agents for Concrete)
- **ASTM C631-70** (Bonding of Plastic Concrete to Hardened Concrete)
- **ASTM C932-80** (Latex-Based Floor Topping and Patching Compounds)
- Styrene butadiene rubber (SBR) emulsion for cementitious bonding
- Suitable for use in hot and tropical climatic conditions
- Provides excellent adhesion, water resistance, and durability for cement mortars

LEGAL NOTES

All technical data provided in this Product Data Sheet is based on laboratory testing under controlled conditions. Actual field performance may vary due to differences in substrates, application methods, site conditions, and environmental factors. ChemFit makes no warranty of merchantability or fitness for a particular purpose. Users shall conduct their own trials to validate product suitability for the intended application. ChemFit reserves the right to modify product specifications without prior notice. For the most current documentation, request the latest Product Data Sheet and Safety Data Sheet from ChemFit.

CHEMFIT CONSTRUCTION CHEMICAL AND SERVICES LIMITED

Office No. 8, 1KM Near Gaey Soap, Sargodha Road, Faisalabad

Tel: +923364544837

Web: www.chemfitchemicals.com

Email: chemfit.pro@gmail.com