



شركة يزيد وعبد الرحمن
— للاستيراد والتطوير العقاري —

(REBAR FREE) Product Technical Approval Package

Yazeed & Abdulrahman Company for Import and Real Estate Development

Email: yacompany25@gmail.com | Tel: 0598502929 / 0599112248



Part 1: Technical Data Sheet

1. Product Description

Rebar Free is a ready-to-use, high-performance hybrid concrete additive, designed as an engineered alternative to conventional 8 mm steel mesh.

It provides a tangible improvement in concrete durability, crack control and mechanical properties.

2. Composition & Raw Materials

Rebar Free consists of a Hybrid Fiber Blend with an advanced engineered formulation, containing the fibers listed in the table below:

Material Type
Steel Micro Fiber
Polypropylene Micro Fiber
Polypropylene Macro Fiber

3. Target Applications & Scope of Use

Rebar Free is specifically designed for the following applications:

- Slabs-on-grade
- Garage floors
- Industrial floors
- Topping concrete over ribbed slabs

4. Approved Replacement Scope

Rebar Free is designed to replace 8 mm steel mesh in slabs-on-grade, garage floors, industrial floors and concrete topping layers, at thicknesses starting from 5 cm, where such mesh is used as distributed reinforcement for crack control and to help distribute service loads.

5. Performance Data

- 21% increase in compressive and breaking strength compared with the reference plain concrete.
- Flexural resistance equivalent to the reference sample reinforced with 8 mm steel mesh.
- Surface cracking reduced by up to 80%, based on company field observations and performance data.

6. Important Use Limitations

IMPORTANT: Rebar Free must not be used as a substitute for the main structural reinforcement of the ribbed slabs themselves, suspended slabs, beams, columns, foundations, or any primary load-bearing elements.

Part 2: Method Statement

1. Scope of Work

This section describes the field application procedures and the handling of Rebar Free on projects.

2. Dosage

Approved dosage: one full bag per 1 m³ of concrete; or one bag spread over 4 m³ when used together with 8 mm steel mesh, for crack resistance and a stronger surface.

3. Pre-Pour Preparation

- Ensure the subbase layer or ribbed slab surface is ready according to the application type.
- Confirm the required concrete volume in cubic metres and determine the number of bags on the basis of one bag per cubic metre.
- Do not open the bag until immediately before use.

4. Addition & Mixing Procedure

Step	Action
1	Determine the exact volume of concrete in the mixer or ready-mix truck
2	Add one full bag of Rebar Free per 1 m ³ of concrete
3	Empty the entire bag into the mixer; do not divide it
4	Run the mixer for 7–10 minutes continuously after the addition
5	Begin pouring, compacting, levelling and finishing as per standard practice

5. Placing, Finishing & Curing

- Pour the concrete immediately after uniform mixing is complete.
- Compact, level and finish according to project requirements and the required final surface.
- Construction or control joints must be executed according to project requirements; the product does not remove the engineering need for them.
- Cure the concrete as normal concrete, following the engineer's instructions or the approved project specification.

6. Site Quality Control

Inspection Point	Requirement
Quantity match	One bag per 1 m ³ of concrete
Mixing time	7–10 minutes continuously after addition
Compaction & finishing	Executed per engineering practice, without unjustified delay
Curing	Adherence to the project's approved concrete curing programme

7. Cases Requiring the Supervising Engineer's Approval

- Any use on structural elements not clearly listed in the approved scope of use.