

ARMOBET 40/40/2 EC

Steel welded mesh for reinforcement with chemically resistant surface treatment

1. Product characteristics

ARMOBET 40/40/2 EC is a thin welded mesh made out of ČSN 11 343 steel, coated with protective, highly chemically resistant, treatment based on polyester-epoxy resins.

2. Use

ARMOBET 40/40/2 EC steel welded mesh is intended for mechanical bonding of thin-layered repair mortar to the base concrete, especially where the quality of concrete is compromised, e.g. by contamination with adhesion-reducing compounds and where simultaneously the structure is exposed to elevated corrosion loading. It is well suited for use in areas with aggressive environment, where the protective coating ensures permanent protection of the steel mesh against corrosion started by neutralization of cement matrix, by penetration of chloride ions etc. Typical use is sewer structures, chemical and food industry, power industry, agriculture and other. It is also recommended for repair of mechanically loaded horizontal areas subjected to de-icing salts (entrance ramps, warehouses, garages, exterior and interior handling spaces, etc.). Anticorrosion coating also allows for minimization of thickness of concrete cover (approx. 5 mm). This allows for prevention of significant weight addition by the repair material, minimization of undesirable aesthetic influence on the structure etc.

3. Physical and mechanical parameters

Material: steel 11 343, chemically resistant polyester-epoxy coating

Mesh dimension (mm)		Mesh size (mm) ^{*)}		Wire diameter (mm)		Number of wires		Weight (kg)
longitudinal	cross wise	longitudinal	cross wise	longitudinal	cross wise	longitudinal	cross wise	
1 500	1 500	40	40	2	2	37	37	5.50

^{*)} The mesh size is measured to the middle of the wire

4. Test certificates

The product is certified according to Act No. 22/1997 Coll. and Governmental Decree No. 163/2002 Coll. Continuous independent production quality control is provided by AZL 1687 LABBET®. Supervision of quality management, environmental and OSH systems is performed by Certification Body No. 3029.

5. Instruction for preparation and application

Fixing the steel mesh. General mechanical bonding with **ARMOBET 40/40/2** thin steel mesh provides for perfect bonding of re-profiling mortars to the surface to be repaired. The mesh is fixed by means of steel tie bars of 3 – 6 mm in diameter, input into bored holes filled with **SUPERFIX f** expansion mortar, for vertical surface or structure use **SUPERFIX TH f**. The distance of the tie bars should not exceed 25÷30 cm. The recommended diameter of holes for tie bars is 12 – 15 mm, depth minimum 65 mm.

ARMOBET 40/40/2 steel mesh can be welded or tied to the tie bars. In the area of expansion joints **ARMOBET 40/40/2** should be fixed at maximum 50 mm from the edge of the joint. The mesh coverage should be at least 10 or 15 mm, the specific thickness of coverage must respect possible chemical loading of the structure. Recommended number of tie bars/1 m² is approximately 6 to 12, depending on the loading and on the nature of the base.

Upon fixing of **ARMOBET 40/40/2** and prior to the re-profiling the base shall be sufficiently moistened. It is not recommended to apply the adhesive intermediate coat!

Application of re-profiling mortars. Depending on the position of the areas to be repaired, suitable application technology should be selected, cf. „Technological procedure“ of the Betosan company.

In general, when re-profiling larger areas, avoid undesirable mechanical loading (vibration, deformation, shocks) of **ARMOBET 40/40/2** in immediate vicinity of the freshly profiled and completed areas. This would affect the bonding of the mesh with the re-profiling mortars in the early stages of their curing and result in lower adhesion to the base and ultimately in the good result of the overall repair.

The cover depth of the mesh is approximately 5 mm, dependent on the maximum grain size of the re-profiling mortar.

6. Packing and storage

ARMOBET 40/40/2 EC is supplied in single pieces of 1 500 x 1 500 mm. Storage and preparation of the mesh for use must take place in a dry environment. In dry environment the shelf life of the product is unlimited.

During manipulation with and transportation of mesh **ARMOBET 40/40/2 EC** it is necessary to prevent mechanical damage to the surface coating.

6. Health protection at work

Work with **ARMOBET 40/40/2 EC** steel mesh does not represent any health or hygienic risks. Standard rules of hygiene are to be complied with while working, approved protective aids (gloves) should be worn.

7. Waste disposal

During disposal of contaminated packages or clearing debris from product, it is necessary to follow the Act No. 185/2001 Coll. on waste, as amended.

8. Important notice

All information mentioned above, especially advice for processing and application of our products, is based on our knowledge from the development of chemical products and on years of experience with applications in practice at standard conditions, and proper storage and use. Due to the differing conditions during processing, high count of products, varying nature and modifications of base and other external influences, the procedure based on the information provided or on other written or oral recommendations, may not always ensure satisfactory working results. BETOSAN s.r.o. assumes no liability for provided advice or recommendation. The applicator must prove that he submitted complete information on time and in writing which is necessary for a proper detailed assessment by BETOSAN s.r.o. The applicator must test the suitability of the products for the intended application. Proprietary rights of third parties, above all, must be taken into account. All received orders are subject to our current "General sales and delivery conditions". Please always make sure that you follow the most recent issue of the Technical Data Sheet. It is available, along with other information, at our Technical Department or at www.betosan.cz.

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CONCRETE REPAIR



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