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TECHNICAL SHEET 08.02.02 − GBR

WATERPROOFING COMPOUNDS

HYDROSOL Elastic

Elastic watertight compound

1. Description, Application

HYDROSOL Elastic is an industrially prepared compound intended for the preparation of elastic waterproofing compound for watertight protection of vertical and horizontal surfaces of water reservoirs, elements of sewage systems and similar facilities, for watertight protection of surfaces in bathrooms - where the interior walls of dry prefabricated buildings are usually made of gypsum cardboards, on balconies, terraces, in swimming pools prior to the installation of ceramic tiles, as well as for the protection of parts of buildings built into the ground – tunnels, culverts, supporting and pillar walls, concrete fences and similar against intrusion of soil damp and water.

It complies with requirements for buildings intended for extraction, storage, and preparation of drinking water (Article 33 of the Slovenian Rules on drinking water). As far as monolithic concrete walls are concerned, it assures quality watertight protection for positive and negative water pressure (insulation coat can be on either side of the wall). However, in the case of walls made of concrete or brick boards, it only assures quality watertight protection for the positive water pressure (insulation coat on the “water side” of the wall applied on at least 10 mm thick cement render finish). HYDROSOL Elastic also has a low radon permeability; therefore, it is also useful as an anti-radon protection of buildings. The permeability coefficient for radon (D) was verified according to method K124 / 02/95 at the University of Prague - " CZECH TECHNICAL UNIVERSITI IN PRAGUE – Faculty of Civil Engineering ".

2. Packaging

Paper bags containing 18 kilos

3. Technical Data

Density of the ready-to-use mortar compound (kg/dm^3)	~1.3
Open time of the ready-to-use mortar compound T = +20 ºC, rel. air humidity = 65 % (hours)	~1.5
Coat thickness (mm)	Maximum 5
Initial tensile adhesion strength pr EN 14891/2006: min. 0.5 (MPa)	1.5
Tensile adhesion strength after water immersion pr EN 14891/2006: min. 0.5 (MPa)	0.7
Tensile adhesion strength after treatment at +70 ºC pr EN 14891/2006: min. 0.5 (MPa)	1.6
Tensile adhesion strength after freezing and thawing pr EN 14891/2006: min. 0.5 (MPa)	0.8

Tensile adhesion strength after immersion in lime water pr EN 14891/2006: min. 0,5 (MPa)	0.9
Tensile adhesion strength after immersion in chlorinated water pr EN 14891/2006: min. 0,5 (MPa)	0.6
Resistance to positive water pressure pr EN 14 891/2006	No water penetration at coat thickness of 3 mm
Resistance to negative water pressure OER, item 12.7	No water penetration at coat thickness of 3 mm

Main ingredients: cement, polymeric binder, quartz fillers

4. Substrate Preparation

Substrate should be solid and clean – without dust and other non-adhered or badly-adhered particles, remains of panelling oils and other filth. Suitable substrates include all at least a month-old fine coarse concrete substrates and also at least a month old fine cement and solid – i.e. heavily reinforced with cement - lime-cement render finishes. Suitably roughen the substrates that are too smooth (shot blasting, brushing, rough polishing). The substrate may be moist, but not soaking. The application of watertight coats may begin only after the subsiding processes of buildings have finished since excess deformations of the substrate, movements, cracks and the similar might be a source of irreparable damage

5. Preparation of Waterproofing Compound for Application

Pour the content of a bag into a suitable quantity of water (for the application with a brush: 330 to 380 ml/kilo of dry compound; for the application with a masonry smoothing trowel: 270 to 300 ml/kilo of dry compound). Stir well with an electric mixer to obtain a homogenous compound without any lumps. Wait for 5 to 10 minutes for the compound to swell. Then stir it well again. If necessary, add little water.

In normal conditions (T = +20 ºC, relative air humidity = 65 %), the prepared mortar compound can be used for 1.5 hours.

6. Application of Waterproofing Compound

Apply the mortar compound in three coats. Always apply the first coat with a masonry brush. Apply the second and the third coats with a stainless-steel masonry smoothing trowel, but they can also be applied with a masonry brush. The second and third coat are applied to the dry bottom coat, the drying time in normal conditions (T = +20 ºC, rel. air hum. = 65 %) is 12 to 24 hours. Apply the compound into each following coat “square-on” the previous coat. The compound prepared with more water can be poured on horizontal surfaces and spread evenly over the surface with a brush or trowel. Third - the levelling coat should be no more than 1 mm thick, and the total thickness of the coatings should not exceed 5 mm. Larger, especially external surfaces are reinforced with vinyl-covered glass fibre mesh (weight/grammage: at least 160 g / m2; windows: about 4 mm x 4 mm), which is immersed in the second coat. Special elastic sealing cords and collars are installed in the joints of vertical and horizontal surfaces, in pipe and other breaches, which are also imprinted into the second coat of waterproofing compound.

Surfaces laden with foot traffic are suitably protected against wear and tear and mechanical damages with suitable tile lining which is laid directly onto the waterproofing coat (always use elastic adhesives, e.g. AKRINOL Elastik or AKRINOL Flex).

The application of the mortar compound is possible only in suitable weather or microclimate conditions: the temperature of the air and the wall surface should be between +5 ºC and +30 ºC and the relative air humidity should be below 80 %. Protect façade surfaces from sun, wind and rainfall using protective scaffold nettings; however, do not conduct any work in rain, fog, or strong wind (≥30 km/h) despite such protection. In conditions of quick drying, treat the processed surfaces with moistening,

In normal conditions (T = +20 ºC, relative air humidity = 65 %), resistance of freshly processed surfaces to damage caused by precipitation (washing away of the application) is achieved in 24 hours at the latest.

Approximate or average use (for 1 mm thick coat):	
HYDROSOL Elastic	~1.5 kg/m^2

Thoroughly clean the tools with water immediately after use.

7. Safety and Health at Work

Further instructions regarding handling the product, use of personal protection equipment, waste management, tool cleaning, first aid measures, warning signs, signal words, components determining hazard, hazard statements and safety statements are listed in the product's safety sheet which you can find on Jub's web page or you can require it from the manufacturer or seller. When applying the product, the instructions and regulations regarding safety for construction, façade and painting works should also be observed.

8. Maintenance and Restoration of Treated Surfaces

Processed surfaces do not require any special maintenance.

The renovation of processed surfaces consists of the new – at least 2-coat application of waterproofing compound. For details, see the chapter »Application«.

9. Storage, Transportation Conditions and Durability

During transportation, protect the product against moistening. Store in dry and airy places!

Shelf life when stored in an originally sealed and undamaged packaging: at least 12 months.

10. Quality Control

The product's quality characteristics are determined by the internal manufacturing specifications as well as by the Slovenian, European and other standards. JUB is ensured the achieving of the declared or set quality level by the ISO 9001 system for total quality management and control, which has been implemented at JUB for many years and which comprises daily quality checks in our own laboratories, occasionally at the Construction Institute in Ljubljana and other independent expert institutions in Slovenia and abroad. During the manufacturing process, JUB strictly complies with the Slovene and European standards for the protection of the environment and for ensuring security and health at work, which has been confirmed by the ISO 14001, ISO 50001 and ISO 45001 certificates.

11. Other Information

Technical instructions contained in this brochure are provided based on JUB's experience and are given as a guideline to achieve the optimum results. JUB cannot accept any responsibility for damage caused by incorrect selection of a product, incorrect use or unprofessional work.

This technical sheet supplements and replaces all preceding editions. JUB reserves the right to change and supplement data in the future.

Designation and date of issue: TRC 059/21-čad, 24 September 2021

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ISO 9001 Q-159
ISO 14001 E-034
ISO 50001 En-024
ISO 45001 H-022

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