Hydroguard Elastic System

WATERPROOFING TECHNOLOGY

CE EN 1504-2 PI / MC / IR

CE EN 14891 CM-P

Highly flexible, polymer-modified, cementitious, 2-component waterproofing slurry

- **Suitable for waterproofing horizontal or vertical surfaces**
- **Ideal for applications where high flexibility is required (e.g. roofs, swimming pools, balconies, tanks, bridges, industrial applications, ETICS, under decorative tiles, dry building constructions etc.)**
- **Very high flexibility, surface mechanical strength, adhesion**
- **Protection against concrete carbonization**
- **Suitable for positive and negative humidity pressures**
- **Excellent workability**
- **High water vapor permeability**
- **Non-corrosive (free of chloride ions and lime)**
- **Indoor and outdoor usage**

Hydroguard Elastic System (Hydroguard One 40 + Hydroguard Elastic Resin) is a highly flexible, polymer-modified, cementitious, 2-component waterproofing slurry. It is highly enriched with new generation of hydrophobic polymers and selected quartz aggregates, which provide enriched extra highly flexibility, water insulation protection, surface mechanical strength and excellent adhesion to structural substrates. It is classified as coating for surface protection of concrete according to Standards **EN 1504-2** & **EN 1504-9:2008** (**Principle PI** - protection against ingress – Method 1.3, **Principle MC** - moisture control – Method 2.3, **Principle IR** – increasing resistivity by limiting moisture content – Method 8.3).
It is also classified as 2-component, liquid applied, water impermeable product for use beneath ceramic tiling bonded with adhesives, **CM-P** according to **EN 14891** [refers to combination: Hydroguard Elastic System Grey (Hydroguard One 40 Grey + Hydroguard Elastic Resin)]

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FIELD OF APPLICATION

Hydroguard Elastic System (Hydroguard One 40 + Hydroguard Elastic Resin) is suitable for waterproofing horizontal or vertical surfaces subject to partial or continuous moisture, basement surfaces indoor and outdoor (before backfilling), wet spaces (bathrooms), walls, concrete, renderings and other structural elements. Provides protection against carbonation of concrete. Suitable for positive and negative humidity pressures.

It is ideal when increased elasticity and adhesion is required and when waterproofing surfaces are subject to expansion-contraction, vibration and appear (or are about to appear) capillary cracks such as indicatively: roofs, inverted roofs, swimming pools, above-ground tanks, exposed surfaces (flat roofs etc.), industrial application, bridges, balconies, garnets, tanks, surfaces which will be covered with decorative tiles, high sealing zones in ETICS systems, dry building constructions, etc.

TECHNICAL DATA (Measurement conditions 20°C και 50% Relative Humidity)	
Color	Component A: **Grey, White** Component B: **White liquid**
Mixing ratio	**10.5 Kg** Hydroguard Elastic Resin σε 25Kg Hydroguard One 40
Maximum grain size	**600μm**
Bulk density of dry mortar	**1,35±0,05Kg/l**
Bulk density of fresh mortar	**2,05±0,05Kg/l**
Temperature application	**From +5°C to +35°C**
Minimum/maximum thickness per coat	**1 mm thickness per coat**
Pot life	**60 min**
Time for apply the next coat	**4-24 hours** after the previous coat
Set to light foot traffic	**8 hours** after the last coat
Consumption	**1.2-1.4kg/m²** per mm coat

PRODUCT PERFORMANCES	
Permeability CO_2, EN 1062-6	s_D > 150m (grey, white)
Permeability to water vapour, EN ISO 7783-2	s_D < 5m : Class I, permeable (grey, white)
Capillary absorption and permeability to water, EN 1062-3	w ≤ 0,05kg/m²h ^{0,5} , (white) w ≤ 0,03kg/m²h ^{0,5} , (grey)
Adhesion to concrete (Pull- off test), EN 1542	≥ 1.00 N/mm² , white ≥ 1.30 N/mm² , grey
Reaction to fire after application, EN 13501-1	C- s1,d0, (white, grey)

Hydroguard Elastic Grey, EN 14891	
Initial tensile adhesion strength, A.6.2	1,7 N/mm²
Tensile adhesion strength after water contact, A.6.4	0,8 N/mm²
Tensile adhesion strength after heat ageing, A.6.5	1,5 N/mm²
Tensile adhesion strength after freeze–thaw cycles, A.6.6	0,7 N/mm²
Tensile adhesion strength after contact with lime water, A.6.9	1,2 N/mm²
Waterproofing, A.7	No penetration
Crack bridging ability under standard conditions, A.8.2	0,77 mm
Tensile adhesion strength after contact with chlorinated water, A 6.8	0,70 N/mm²

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DIRECTIONS FOR USE:

1. **SUBSTRATE - PREPARATION:** To ensure good adhesion substrate should be sound, clean, free of dust, oil, lime, tar and loose elements. On absorbent substrates light soaking with water before use.

On substrates with high absorbency (eg brick, aerated concrete, old plasters, etc.) it is recommended to apply **Eco Dur Aqua** by **KRAFT PAINTS** diluted 1:1 to 1:2 with water. Caution! The primer must properly be diluted in order to be completely absorbed and avoid film formation to the substrate surface.

On non-absorbent substrates, it is recommended to use **Epoxy Aqua Floor Primer** by **KRAFT PAINTS** with simultaneous application of quartz sand. Caution! The application of the waterproofing layer must be carried out between 24 – 48 hours after priming and care must be taken so that any negative moisture pressure does not come into contact with the primer.

For necessary repairs before application (e.g. smoothing, leveling, grooves formations at wall-floor junctions, etc.) the appropriate repairing mortars from **KRAFT PAINTS** are selected.

2. **MIXING:** In a clean container that contains **Hydroguard Elastic Resin** gradually empty the package content of **Hydroguard One 40** while stirring constantly with a low-speed electric mixer (10,5 Kg **Hydroguard Elastic Resin** per 25Kg **Hydroguard One 40** or 2,1 Kg **Hydroguard Elastic Resin** per 5Kg **Hydroguard One 40**).

Mixing must be done carefully so that no amount of product remains on the walls or bottom of the container. The product is ready for use when the mixture becomes homogeneous without lumps.

3. **APPLICATION**: Application of **Hydroguard Elastic System** (Hydroguard One 40 + Hydroguard Elastic Resin) is carried out using a roller, brush or metal spatula, in 2 layers (at least, depending on water load) of 1mm/per layer maximum thickness. Each subsequent layer is applied crosswise after the previous one has dried sufficiently. If 24 hours pass after the last layer, light soaking with water is recommended before application of the next one.

On "demanding" substrates that are subject to intense stress and micro-cracks already exist - or may occur - (e.g. roofs, swimming pools, balconies, tanks, etc.) it is recommended, while the 1st waterproofing layer is still fresh, to reinforce with anti-alkaline fiber mesh (**Hydroguard Net 75** by **KRAFT PAINTS**). The mesh strips overlap each other by 10cm. Subsequent waterproofing layers must completely overlap the grid mesh.

It is also recommended to reinforce the waterproofing layers locally in critical areas of application (e.g. construction junctions, grooves, wall-floor joints, gutters etc.) by using fiber mesh or polyester fleece.

4. **CLEANING OF TOOLS:** Tools should be cleaned immediately after application with plenty of water while the material is still fresh or otherwise mechanically. Remove as much material as possible from tools before cleaning.

IMPORTANT NOTES:

Time between successive layers: 4 – 24 hours, depending on environmental conditions.

Do not apply at temperatures below +5°C and above +35°C as well as at relative humidity above 65%.

Do not apply on frozen or very hot substrates.

Avoid application thickness more than 1mm/layer, as surface capillary cracks may form.

In case of backfilling, a special membrane (film) is applied on to the final waterproofing layer in order to protect it.

In case of free exposure of the waterproofing to solar radiation, as a final coating, use the 2-component system **Hydroguard Elastic System WHITE** (Hydroguard One 40 White + Hydroguard Elastic Resin).

Maintain the existing expansion joints of the substrate and, on large surfaces, create new ones approximately every 50 - 70m2 (depending also on other technical specs – Please refer to Technical Support).

Do not apply in case of impending rain for at least the next 24 hours after application.

It is recommended to protect the surfaces against strong wind currents and direct sunlight.

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CONSUMPTION

The mixture consumption is about 1,2-1,4 kg/m^2/mm. It depends on type of substrate, the type of thermal insulation boards, and also tools, conditions and method of application.

CE 2884/1871	**Druckfarben Hellas S.A.** **Megaridos Ave., Kallistiri area,** **GR-19300 Aspropyrgos, Greece**
23 DoP No 05.14 **Hydroguard Elastic Grey 2K** **EN 1504-2:2004** Goating (C) for surface protection of concrete structures according to principles 1(PI), 2(MC) and 8(IR)	
Reaction to fire	C-s1, d0
Permeability to CO_2	s_D > 50 m
Permeability to Water Vapour	Class I
Capillary Absorption and permeability to water	w< 0.1 kg/m^2·h$^{0.5}$
Adhesion strength by pull-off test	≥ 0.8 N/mm^2
Dangerous substances	See SDS

CE 2884 / 1871	**Druckfarben Hellas S.A.** **Megaridos Ave., Kallistiri area,** **GR-19300 Aspropyrgos, Greece**
23 DoP No 05.11 **Hydroguard Elastic White, 2K** **EN 1504-2:2004** Goating (C) for surface protection of concrete structures according to principles 1(PI), 2(MC) and 8(IR)	
Reaction to fire	C-s1, d0
Permeability to CO_2	s_D > 50 m
Permeability to Water Vapour	Class I
Capillary Absorption and permeability to water	w< 0.1 kg/m^2·h$^{0.5}$
Adhesion strength by pull-off test	≥ 0.8 N/mm^2
Dangerous substances	See SDS

PACKAGING – SHADES

The 2-component (A+B) product is packaged in:
a) 35,5 Kg (A+B) = 25Kg valve paper bag Hydroguard One 40 (Grey or White Shade) + 10,5 Kg plastic container Hydroguard Elastic Resin,
b) 7,1 Kg (A+B) = 5Kg valve paper bag Hydroguard One 40 (Grey or White Shade) + 2,1 Kg plastic container Hydroguard Elastic Resin.

STORAGE

Stored on wooden pallets and in a dry environment with temperature above 5°C for 12 months from the production date.

HEALTH, SAFETY & ENVIRONMENTAL INFORMATION

Carefully read and follow all cautions and warnings on product label. For further information, refer to the Material Safety Data Sheet of this product.

Poison Centre Tel:

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BUSINESS QUALITY VERIFICATION BQV

Certified F.P.C.
EN 1504-3:2005
Cert. No. 2884-CPR-00129

ISO 9001 TÜV NORD TÜV HELLAS SYSTEM CERTIFICATION
ISO 14001 TÜV NORD TÜV HELLAS SYSTEM CERTIFICATION
ISO 45001 TÜV NORD TÜV HELLAS SYSTEM CERTIFICATION
ISO 50001 TÜV NORD TÜV HELLAS SYSTEM CERTIFICATION

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