

## 5.3 Improving additives for concrete-mortars & coating products

# DUROMAX Improving construction resin for mortars - 100% acrylic



### TECHNICAL SPECIFICATIONS

|                                   |  |
|-----------------------------------|--|
| Form - Color                      | Acrylic polymer emulsion - White, becomes transparent when dry |
| Density                           | 1.00±0.05 kg/lt  |
| Application temperature           | From +5 °C to +35 °C   |
| pH                                | 10.0 ±1.0  |
| Toxic                             | No   |
| Does not contain organic solvents |  |

The adhesion strength doubles after 28 days, per EN 1015-12. The experimental measurements were performed per EN 1015-12 within the DUROSTICK chemical lab and were confirmed by the CERECO audit (949/2010)

### CONSUMPTION

Depending on the application. From 1:1 up to 1:8 product to water ratio.

### STORAGE

Store in places protected from sun and frost for at least 15 months from production date.

### CLEANING

Clean all tools with water, immediately after use.

### SAFETY DIRECTIONS

The product needs no hazard labeling under current European and National legislation. However, it is recommended to keep away from the reach of children. If swallowed, seek immediate medical advice and show the container or label.

### NOTES

- Increase up to double the amount of DUROMAX used, the thinner the lining coats get.
- When increased flexibility of cement or lime mortars is required, the ratio is determined at 1:3, DUROMAX : water
- The minimum amount of DUROMAX is 1.5 lt per 50kg of cement
- Do not allow for the product to be exposed to temperatures below + 5 °C.
- If frozen, transfer to a warmer environment.

### PACKAGING

Carton box with 15 pcs of 750ml each one  
 Carton box with 6 pcs of 3.5lt each one  
 18lt container  
 1,000lt tank (special order)

### PROPERTIES

Highly concentrated acrylic polymer emulsion. An advanced technology, nanomolecular product, suitable for improving cement and lime mortars and their overall properties.

- Increases adhesion to the substrate.
- Improves flexibility, watertightness and workability.
- Reduces curing related shrinkage and prevents hairline cracks.
- Increases the surface and the mass strength of the mortar added in.
- Facilitates the construction of thin layers, enhances abrasion resistance and prevents surface dusting.
- Resistant to cement and lime alkalinity.
- Does not re-emulsify after the complete mortar curing.
- Increases the resistance of mortars to acids, salts and oils, petroleum etc.
- Prevents plaster deterioration from moisture and snow.
- Reduces the water requirement of mortars.

chanical strengths (0.75lt DUROMAX per 25kg of cement).

**Durable cement screeds:** Add 0.75-1.5lt DUROMAX per 25kg of cement to increase mechanical strengths within the mass and surface of the screed.

**Durable floors:** The addition of 1.5lt DUROMAX per 25kg cement, allows for creating thin cement screeds without the risk of detachment.

**In cementitious adhesives:** Increases adhesion, durability, flexibility and watertightness (0.5lt DUROMAX per 25kg of cement).

**In grouts and tile/marble adhesives:** Improves their watertightness and increases the adhesion and flexibility (0.75lt DUROMAX per 25kg).

**In brushable cementitious waterproofing mortars:** Increases their flexibility and mechanical strengths (0.5lt DUROMAX per 25kg of cement).

### APPLICATIONS AS ADMIXTURE:

**In concrete repairs:** Mortar preparation with river or quarry sand or specialized ready mixed (fine or coarse grain) mortars. The mixing ratio in each case is 1lt DUROMAX per 25kg of cement.

**In building mortars:** Creates a flexible bond between the mortar grains, thus preventing crack formation from minor earthquakes and vibrations due to excavating equipment operating in adjacent areas (0.5-1.5lt DUROMAX per 25kg of cement).

**In new or existing renders in need of repairs:** It increases durability and watertightness properties of both, traditional and ready mixed plasters (0.5-1.5lt DUROMAX per 25kg of cement).

**As necessary additive to scratch coat plasters:** Ensures adhesion to insulating products, e.g. expanded or extruded polystyrene, etc. (1.0lt DUROMAX per 25kg of cement).

**As necessary additive to base coat plasters:** Increases adhesion and me-

### APPLICATIONS AS BRUSHABLE

**Floor priming:** Prevents dusting and yields abrasion resistant properties when coating fresh concrete, at a dilution rate of 1:3 with water.

### APPLICATIONS AS SPRAYABLE PRIMER

**For surface stabilization of unsound surfaces made of plaster, concrete or lightweight screeds (filling material):**

Dilute Duromax at a ratio of 1:4 with water and spray or coat the surfaces.

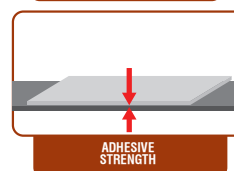
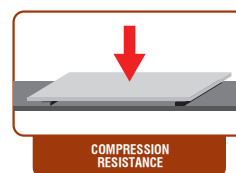
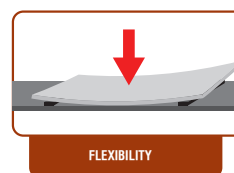
### USE

#### 1. Surface preparation

For better results it is highly recommended that the application surfaces are clean, lightly soaked, free from loose materials and dust, paint as well as any formwork oils etc.

#### 2. Application

Add the required amount into the mixing water of the mortar, always depending on the application. Continue by adding the mortar mix into the liquid and mix following the instructions of the product.



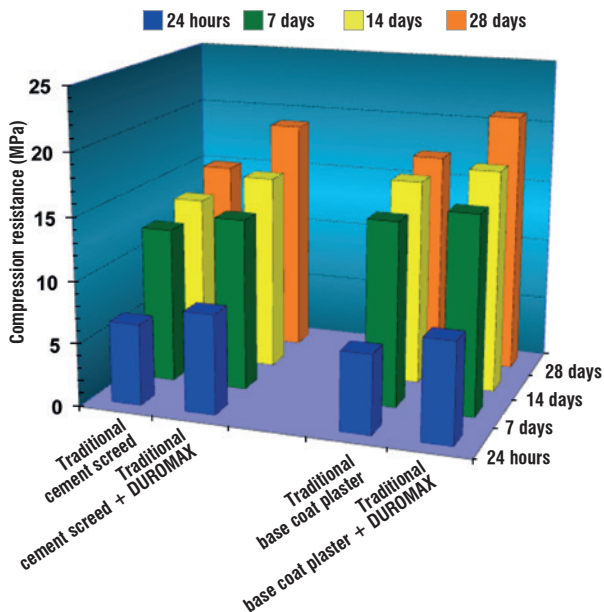
## APPLICATION EXAMPLES

| APPLICATION  | DRY MIXTURE                                | MIXING LIQUID                  | MIXING LIQUID TO DRY MORTAR RATIO |
|--|--|--------------------------------|-----------------------------------|
| Grouting natural stone on floors   | Cement and river/sea sand<br>1:2 up to 1:3 | DUROMAX:water<br>1:4 up to 1:8 | 1:8 up to 1:10                    |
| Roof coving creation between walls and floors  | Cement and river/sea sand<br>1:3           | DUROMAX:water<br>1:6           | 1:8 up to 1:10                    |
| Substrate creation for radiant heating floor systems   | Cement and river/sea sand<br>1:3 up to 1:4 | DUROMAX:water<br>1:1           | 1:4 up to 1:5                     |
| Bonding coat creation between existing and new concrete or mortar, on horizontal or pitched surfaces   | Cement and river/sea sand<br>1:1           | DUROMAX:water<br>1:1           | 1:2                               |
| <b>Apply the new concrete or mortar while the bonding coat is still fresh.</b><br><b>Apply the bonding coat with a brush or roller, on cleaned and soaked surfaces, and at a coat thickness of 2mm</b> |  |                                |                                   |
| In waterproofing pressed cement screeds applied in water tanks, swimming pools and fountains, as well as north-facing walls  | Cement and river/sea sand<br>1:2 up to 1:3 | DUROMAX:water<br>1:2           | 1:4                               |

## PREVENTING THIS DAMAGE FROM HAPPENING TO YOU!



**Add DUROMAX to increase mortar durability**



**Add DUROMAX to reduce water absorption**

