



# ELASTOMERIC TREATMENT

restoration systems for surfaces subject to cracks



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### restoration systems for surfaces subject to cracks

The occurrence of cracking on facades not only spoils the decorative look of buildings but also promotes the deterioration of plasters and underlying structures by allowing water and aggressive atmospheric agents to better penetrate into the structure. Early treatment to protect cracked facades avoids increasingly more expensive maintenance work. The **rialto elastomeric treatment** is an impermeable and elastic system, which repairs and prevents cracking problems on facades, resulting in long-lasting protection against inclement weather.

## SMOOTH-FINISH ELASTOMERIC TREATMENT

### RIALTO RASELAST – DUROFLEX

A matte or smooth finish restoration system for the protection of concrete or brick facades subject to cracks.

The treatment includes a penetrating and fixing primer for interior or exterior, an elastomeric leveling product reinforced with alkali-resistant fibers, a fiberglass mesh and an elastomeric finishing product with sandy-matte effect, as indicated below:

**Primer:**

**rialto primer or stabilizer**

**Elastomeric leveling product:**

**rialto raselast**

**Mesh:**

**rialto fibrelast**

**Elastomeric finish:**

**rialto duroflex**



The elastomeric treatment **rialto raselast-duroflex** restores interior or exterior surfaces, both concrete and brick, subject to cracks up to 1.5-mm wide, with the prior application of a mesh and a crack sealant.

On sound plasters or surfaces with capillary fissures less than 0.2-mm wide, the elastomeric finish **rialto duroflex**, with the appropriate priming product, is capable of preventing the occurrence of micro cracks due to mortar shrinkage without the prior application of a leveling material.

### RIALTO DUROFLEX

exhibits the following characteristics:

- a high degree of permanent elasticity
- excellent resistance to UV rays and bad weather conditions
- it has a good adhesion: > 10 kgf/cm<sup>2</sup>
- extreme resistance to abrasion (> 13,000 Gardner cycles)
- prevents the formation of mold
- good water repellence
- excellent surface adherence
- permeable by water vapor (Sd = 0.96 m)
- non-flammable

### Application on cracks up to 0.5-mm wide

Clear the surface of any friable or dusty particles, deteriorating old paint or greasy residues until a compact, well cleaned and dry surface is obtained (Picture 1).

Apply one coat of insulating fixing primer **rialto stabilizer** (exterior walls) or a coat of penetrating fixing **rialto primer** (interior walls) diluted with 1:8 water (Picture 2). Let stand at least 24 hours before further applications.

Apply two coats of elastomeric fiber leveling product **rialto raselast** using a stainless steel trowel to smooth the surface. Allow at least a 12-hour interval between the two applications (Picture 3).

Apply two coats of elastomeric finish **rialto duroflex** using a roller, brush or spray. Do not dilute and wait at least 12 hours between first and second coat (Picture 4).



(2) Application of **rialto primer** (interior walls) or **rialto stabilizer** (exterior walls)



(3) Leveling with **rialto raselast**



(1) A dry and clean cracked surface



(4) Finishing with **rialto duroflex**

### Application on cracks up to 1.5-mm-wide

#### Complete crack treatment with application of reinforcement mesh.

Clear the surface of any friable or dusty particles, deteriorating old paint or greasy residues until a compact, well cleaned and dry surface is obtained.

Cracks wider than 0.5-mm should be expanded (Picture 1). Dust off thoroughly, apply a coat of **rialto primer** or **rialto stabilizer** (Picture 2) and seal with **rialto raselast** mixed with 30% of Portland cement (Picture 3).

Apply **rialto raselast** to all surfaces using a stainless steel trowel (Picture 4) and cover the crack with fiberglass mesh,

overlapping by at least 10 cm on each side. Use the trowel to imbed the mesh in the **rialto fibrelast** (Picture 5).

If the cracks are too close, apply the mesh on the whole surface, overlapping it by 10 cm on all sides.

Wait until the first coat of **rialto raselast** is perfectly dry before applying the second coat, taking care to completely cover the mesh.

When rialto raselast is perfectly dry, apply two coats of **rialto duroflex** using a roller, brush or spray. Do not dilute and wait at least 12 hours between first and second coat (Picture 6).



(1) Expanding the crack



(2) Application of **rialto primer** (interior walls) or **rialto stabilizer** (exterior walls)



(3) Sealing the crack with **rialto raselast** mixed with cement



(4) Total leveling treatment with a coat of **rialto raselast**



(5) Application of **rialto fibrelast** and leveling treatment with second coat of **rialto raselast**



(6) Finishing with **rialto duroflex**

COVERING CAPACITY	For cracks < 0.5 mm	For cracks < 1.5 mm
<b>rialto primer</b>	approx. 50 m <sup>2</sup> /l	approx. 50 m <sup>2</sup> /l
<b>rialto stabilizer</b>	approx. 6 m <sup>2</sup> /l	approx. 6 m <sup>2</sup> /l
<b>rialto raselast</b> (2 coats)	approx. 1.2 kg/m <sup>2</sup>	approx. 2 kg/m <sup>2</sup>
<b>rialto fibrelast</b> (overlapped for at least 10 cm)	-	approx. 1.2 m <sup>2</sup> /m <sup>2</sup>
<b>rialto duroflex</b> (2 coats)	approx. 3 - 3.5 m <sup>2</sup> /l	approx. 3 - 3.5 m <sup>2</sup> /l

### Color range

**rialto duroflex** is available in wide range of colors. See Collezione Italia fan deck.

## THICK-FINISH ELASTOMERIC TREATMENT

### RIALTO INTONAL OR MATONAL – THICK COATING

A rustic-finish restoration system for the protection of concrete or brick facades subject to cracks.

The treatment includes a fixing primer, an elastic leveling product reinforced with alkali-resistant fibers, a fiberglass mesh, an acrylic or siloxane color blending primer and a thick coating with acrylic or siloxane rustic finish, as indicated below:

**Primer:**  
rialto primer or stabilizer

**Leveling product:**  
rialto intonal or matonal

**Mesh:**  
rialto fibrelast

**Color-blending primer:**  
rialto finish or domosil

**Thick coating:**  
rialto carso 1 or 2, carso 1 or 2 silossanico, duralbo, duralbo silossanico, eralit or eralit silossanico

The elastomeric treatment with **rialto intonal** or **rialto matonal – thick coating** allows restoration of interior or exterior surfaces, both concrete and brick, subject to cracks up to 2-mm wide, with the prior application of a mesh and a sealant for cracks.

**rialto intonal** and **rialto matonal** allows coverage of cracks several millimeters wide. Therefore, they are particularly suited for surfaces with slight imperfections.

As a part of the treatment, it is possible to use both an acrylic and siloxane **thick coating** to achieve the desired rustic-looking finish: granulated, fine or coarse (**rialto carso 1 or 2**), fine coarse coating (**rialto duralbo**), or troweled (**rialto eralit**).

**rialto intonal** is a leveling product based on a thermoplastic binder and alkali-resistant fibers, characterized by a high degree of permanent elasticity and an excellent surface adherence. It seals cracks up to 2-mm wide while maintaining important substrate breathability (Sd = 0.56 m). Apply coats to a maximum thickness of 1.5-2.0 mm using a stainless steel trowel.

**rialto matonal** is latex-based with thermoplastic resins and alkali-resistant fibers, which are mixed with sand, cement and water to prepare highly-elastic and surface-adhering leveling products able to seal cracks up to 2-mm wide. Using a stainless steel trowel, apply in coats no more than 2-mm thick.



COVERING CAPACITY	For cracks < 0.5 mm	For cracks < 2 mm
<b>Undercoat</b>	approx. 50 m <sup>2</sup> /l	approx. 50 m <sup>2</sup> /l
<b>rialto primer</b>		
<b>rialto stabilizer</b> Restoration mortar and fiber mesh	approx. 6 m <sup>2</sup> /l	approx. 6 m <sup>2</sup> /l
<b>rialto intonal</b>	approx. thickness 1.5 mm (1 coat): <b>rialto intonal</b> 2 kg/m <sup>2</sup> Portland 0.60 kg/m <sup>2</sup>	approx. thickness 2 mm (2 coats): <b>rialto intonal</b> 2.5 kg/m <sup>2</sup> Portland 0.75 kg/m <sup>2</sup>
<b>rialto matonal</b>	approx. thickness. 2 mm (1 coat): <b>rialto matonal</b> 0,22 l/m <sup>2</sup> /mm Portland 0.33 kg/m <sup>2</sup> /mm Sand 0.44 kg/m <sup>2</sup> /mm	approx. thickness 4 mm (2 coats): <b>rialto matonal</b> 0,22 l/m <sup>2</sup> /mm Portland 0.33 kg/m <sup>2</sup> /mm Sand 0.44 kg/m <sup>2</sup> /mm
<b>rialto fibratex</b> Color-blending primer	-	1.2 m <sup>2</sup> /m <sup>2</sup>
<b>rialto finish</b> (for acrylic)	8 m <sup>2</sup> /l	8 m <sup>2</sup> /l
<b>rialto domosil</b> (for siloxane) Thick coating	10 m <sup>2</sup> /l	10 m <sup>2</sup> /l
<b>rialto carso 1 - carso 1 silossanico</b>	2 kg/m <sup>2</sup>	2 kg/m <sup>2</sup>
<b>rialto carso 2 - carso 2 silossanico</b>	3.3 kg/m <sup>2</sup>	3.3 kg/m <sup>2</sup>
<b>rialto duralbo - duralbo silossanico</b>	1.7 kg/m <sup>2</sup>	1.7 kg/m <sup>2</sup>
<b>rialto eralit - eralit silossanico</b>	1.5 kg/m <sup>2</sup>	1.5 kg/m <sup>2</sup>

### Application on cracks up to 0.5-mm-wide

Clear the surface of any friable or dusty particles, deteriorating old paint or greasy residues until a compact, well cleaned and dry surface is obtained.

Apply one coat of insulating fixing primer **rialto stabilizer** (exterior walls) or a coat of penetrating fixing **rialto primer** (interior walls) diluted with 1:8 water. Let stand at least 24 hours before further applications.

Using a stainless steel trowel, apply a coat of **rialto intonal**

mixed with 30% of Portland cement, or a coat of a cement-based mixture prepared with 2 parts of **rialto matonal**, 3 parts of Portland cement, 4 parts of sand (quantity in volumes) and water as needed.

Allow at least 12 hours for product to dry completely, then apply a coat of **rialto finish** or **rialto domosil** diluted with 20% water, according to the type of thick coating selected (acrylic or siloxane).

Let stand for at least 6 hours, then apply the selected **rialto thick coating** using a stainless steel trowel.

Application on cracks up to 2-mm wide  
Complete crack treatment with application of  
reinforcement mesh.

Clear the surface of any friable or dusty particles, deteriorating old paint or greasy residues until a compact, well cleaned and dry surface is obtained.

Cracks wider than 1 mm should be expanded (Picture 1), thoroughly dusted and treated with one coat of **rialto primer** or **rialto stabilizer** (Picture 2) and sealed with **rialto intonal** mixed with 30% of Portland cement (Picture 3).

Using a stainless steel trowel, apply **rialto intonal**, mixed with 30% of Portland cement, or the cement-based mixture prepared with 2 parts of **rialto matonal**, 3 parts of Portland cement, 4 parts of sand (quantity in volumes) and water as

needed to all surfaces (Picture 4). Apply the alkali-resistant fiberglass mesh **rialto fibratex**, overlapping the crack by at least 10 cm on each side (Picture 5). If the cracks are too close, apply the mesh on the whole surface, overlapping it by 10 cm on all sides.

Wait until the first coat of the leveling product is completely dry before applying the second coat, taking care to completely cover the mesh.

Allow at least 12 hours until product is completely dry, then apply a coat of **rialto finish** or **rialto domosil** (Picture 6) diluted with 20% water, according to the type of thick coating selected (acrylic or siloxane).

Let stand for at least 6 hours, then apply the selected **rialto thick coating** using a stainless steel trowel (Picture 7).



(1) Expanding the crack



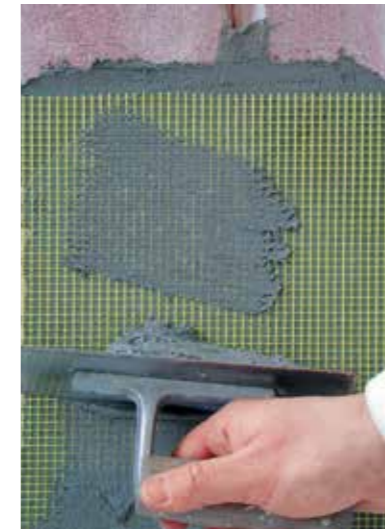
(2) Application of **rialto primer** (interior walls) or **rialto stabilizer** (exterior walls)



(3) Sealing the crack with cement mixture based on **rialto intonal** or **matonal**



(4) Total leveling treatment with a coat of **rialto intonal** or mixture based on **rialto matonal**



(5) Application of **rialto fibrelast** and subsequent application of second coat of leveling product



(6) Application of **rialto finish** or **rialto domosil**



(7) Application of the selected **rialto thick coating**

## HOW TO CHOOSE THE RIGHT ELASTOMERIC TREATMENT

The **rialto raselast – duroflex** treatment should be used for cracks up to 1.5 mm wide or to prevent the occurrence of micro-cracks, when there is a risk of cracking in the substrate due to mortar shrinkage or sudden temperature changes. The treatment produces a fine, smooth matte finish, slightly sandy to the touch.

The **rialto intonal** or **rialto matonal - thick coating** treatment should be used to reach maximum elasticity on cracks up to 2 mm wide and to give a rustic matte finish such as **rialto carso**, **duralbo** or **eralit**.

The average thickness that can be applied in one coat of **rialto matonal** is 4 mm, while **rialto intonal** is 2 mm, which allows better coverage of slight substrate imperfections.

Use of a **siloxane thick coating** with **rialto intonal** or **matonal**, instead of an acrylic coating, provides a more vapor permeable and water repellent finish.



### WARNING

For structural dynamic cracks wider than 2 mm, it is necessary to obtain expert advice from a building engineer and/or geologist to carry out a detailed technical examination and evaluation of the cause of the deterioration and structural imbalance and to define the technical methods to correct the problem.

Then see **rialto** technical department for selection of the most appropriate treatment.

For further information on the products described in this brochure, see also the relevant technical sheets.

### WORKING INSTRUCTIONS

- Prepare scaffolding to allow continuous application until architectural impediments are encountered (string-courses, corners, joints, etc.).
- Clean equipment with water immediately after use
- Protect product in the container from frost
- Do not apply when temperatures are below 7 °C (44°F) or above 30 °C (86°F)
- Dispose of product with care
- Dispose of waste through authorized waste disposal services

TECHNICAL DATA	Viscosity (mPas)	Specific weight (kg/l)	pH	Adhesion (kgf/cm <sup>2</sup> )	Dry residue	Resin volume solids out of total volume solids	Shelf life	Packing
<b>primer</b>	600 ± 100	1.0	5.5	-	45 ± 2 %	-	1 year	5 and 20 l
<b>rialto stabilizer</b>	25 ± 10	0.9	-	-	28 ± 0,5 %	-	1 year	5 and 20 l
<b>rialto raselast</b>	27000 ± 2000	1.6	7.0	> 10	70 ± 1 %	16 ± 0.5 %	1 year	25 kg
<b>rialto fibrelast</b>	-	-	-	-	-	-	1 year	100 mq
<b>rialto duroflex</b>	6500 ± 500	1.4	7.5	> 10	56 ± 1 %	36 ± 1 %	1 year	15 l
<b>rialto intonal</b>	26000 ± 2000	1.7	7.0	> 10	77 ± 0.5 %	8.8 ± 0.5 %	1 year	5 and 25 kg
<b>rialto matonal</b>	7200 ± 1000	1.2	6.0	> 10	46 ± 1 %	22 ± 1 %	1 year	20 l
<b>rialto fibratex</b>	-	-	-	-	-	-	1 year	50 mq
<b>rialto carso 1 and 2</b>	18000 ± 2000	1.8	7.5	> 10	84 ± 2 %	9.5 ± 0.5 %	1 year	25 kg
<b>rialto duralbo</b>	19000 ± 2000	1.9	7.5	> 7	83 ± 2 %	9.6 ± 0.5 %	1 year	25 kg
<b>rialto eralit</b>	18000 ± 2000	1.7	7.5	> 17	78 ± 2 %	7.0 ± 0.5 %	1 year	25 kg
<b>rialto rialto carso 1 and 2 silossanico</b>	18000 ± 2000	1.7	8.2	> 10	80 ± 2 %	9.7 ± 0.5 %	6 months	25 kg
<b>rialto duralbo silossanico</b>	19000 ± 2000	1.8	8.2	> 10	81 ± 2 %	9.6 ± 0.5 %	6 months	25 kg
<b>rialto eralit silossanico</b>	18000 ± 2000	1.7	8.2	> 17	81 ± 2 %	9.7 ± 0.5 %	6 months	25 kg



## A solution to all cracking problems

Cracks are not all the same. Therefore, only after a thorough examination of the surface it is possible to define the most suitable type of treatment. There are three main types of cracks:

- **Micro-cracks or capillary fissures:** these are gaps in the plaster less than 0.2 mm wide due to plaster shrinkage occurring during the drying process. They have a spiderweb-like appearance or, on painted facades, they present a leopard skin-like effect. The elastomeric coating **rialto duroflex** offers the ideal solution to tackle these types of problems.
- **Cracks:** these are gaps in the plaster less than 2.0 mm wide due to deterioration or slight structural settling. The **rialto** elastomeric treatment restores facades subject to this type of cracking and gives them long-lasting protection from deterioration.
- **Structural cracks:** these are gaps wider than 2.0 mm which affect both the plaster and the underlying structure. They are due to structural settling and sinking and are always of a dynamic nature. They are the most dangerous with respect to the statics of walls; therefore, it is recommended to first seek the expert advice of an engineer or geologist in order to diagnose the cause of structural deterioration and define best treatment methods. Then consult the **rialto** technical department to select the most suitable products.



The **rialto** elastomeric treatment includes three different type of systems, according to the elastic leveling product applied and the finishing product selected:

- **rialto raselast - duroflex** treatment
- **rialto intonal - thick coating** treatment
- **rialto matonal - thick coating** treatment

It is possible to select acrylic or siloxane thick coatings with different types of finishing effects.





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