



TECHNICAL PAMPHLET



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SURFACE PREPARATION:

On securely adhered ceramic coverings (not porcelain stoneware) or solid and dry concrete supports, the surface must be cleansed and washed thoroughly by removing any dust, grease, soap and anything that may cause the paint to detach.

On floors free of damp or with surface or rising damp up to 15%, always apply RASANTE DDS.

On walls, apply RASANTE DDS only when the damp conditions (from 3% to 15%) require to do so, or when the national regulations or the specification prescribe the use of a vertical moisture barrier.

The RASANTE DDS two-component product must be catalysed with B60, mixing thoroughly with a spatula or a mechanical tool, and then applied within 40–50 minutes using the PV 43 ¹ stainless steel trowel on a clean and degreased surface that has been well dried (for example, with an industrial heater), so that the product adheres perfectly. This will prevent any detachments due to moisture.

After 24 hours at 20°C, if the grout lines have not been fully levelled or if there are any holes, fill them using STUCCO SL20 or the two-component STUCCO SB30 ¹ before applying METEORE 12.

STUCCO SL20 is ideal to be applied on moderately porous surfaces and whenever the substrate's absorption must be evened out. For maximum performance in terms of waterproofness and adhesion, we recommend using the two-component STUCCO SB30 which, given its epoxy nature, can be used for filling all areas requiring high water-tightness, so as to obtain a product similar to ceramic once catalysed.

If, on the other hand, the rising damp exceeds 15% when measured with adequate tools (carbide hygrometer), we recommend not applying VALPAINT E-VOLUTION.

WARNING: when applying the product on walls, carefully assess the consistency of the substrate and avoid applying VALPAINT E-VOLUTION on loose or poorly compact surfaces such as chalking or detaching plaster or poorly-adhering paint.

When applying the product on plasterboard, please check that the latter is of excellent quality, new or like new. For improved adhesion, before applying METEORE 12, you should apply one coat of TOP COAT AR60 Glossy using a paintbrush or wool roller. TOP COAT AR60 Glossy must be catalysed with CT80, and in this case it should also be diluted 1:2 with water and mixed thoroughly. When applying the product on floors, prevent water puddles from forming on the surface to be decorated with the VALPAINT E-VOLUTION system, adjusting the gradients before applying METEORE 12 if they are inadequate for water drainage. Level the surface with RASANTE DDS or with STUCCO SB30: several layers of the product can be applied, depending on the desired thickness. Any construction joints, insulation joints or contraction joints on the surface to be decorated should be left free to allow for any deformation. These should therefore not be filled or linked together for any reason. If any joints in the surface have been filled with dust or previous treatments, these should be reopened using suitable tools.



APPLICATION CYCLE FOR MARBLED EFFECT

SKIM COATING WITH METEORE 12: After 24 hours at 20°C from the application of RASANTE DDS or STUCCO SB30 or after 4 hours at 20°C if STUCCO SL20 filler was used, apply one coat of METEORE 12 as a skim coat, **1** leaving a sufficiently thick layer to make the surface level and smooth.

FINISHING WITH METEORE 12: After 8 hours at 20°C, apply METEORE 12 again on the entire surface using the PV 43 **1** stainless steel trowel. Then, while the product is still wet, apply the PV 105 **2** brush over the surface to create irregular and undulating grooves running from top to bottom and vice-versa. After 20–30 minutes at 20°C, use the PV 106 sprayer **3** to spray water on the existing METEORE 12, following the strips created when METEORE 12 was worked. This procedure will facilitate the smoothing procedure for METEORE 12 with the PV 43 stainless steel trowel. **1**

It is equally important to wait at least 12 hours at 20°C – after METEORE 12 has been applied – before sanding the surface with 220-grit sandpaper in order to have a perfectly smooth and even surface and prevent any lumps, grooves and wrinkling.

DECORATION WITH SABULADOR SOFT: after 12 hours at 20°C, use a compact sponge to apply SABULADOR SOFT diluted 20–30% with water and cover the surface for the first two coats. Allow the first coat to dry for 4 hours at 20°C before applying the second coat.

The next coat of SABULADOR SOFT should be applied as a third coat of a different colour, once again over the entire surface, then removed using the sponge after the latter has been rinsed in water and thoroughly squeezed. The colour should be removed by applying varying degrees of pressure to create the desired nuances on the smoothest part of the surface. Similarly, the marbled effect can be enhanced by leaving varying amounts of colour in the grooves.

If a fourth coat is to be applied, using a different SABULADOR SOFT colour than in the previous coats, it should be applied only to the grooves, or just around these, creating nuances using the sponge after it has been rinsed in water and thoroughly squeezed.

APPLYING THE GEL: After 8 hours at 20°C, apply GEL EP40, which must be catalysed with CT50. Mix it thoroughly with a spatula and ensure that the product clinging to the walls of the can reaches the centre so that it can be amalgamated properly.

The pot life in the can is 20–25 minutes at 20°C, therefore we suggest not mixing the product for more than 3 minutes. Once applied, the product can be worked on the surface for up to roughly 1 hour at 20°C.

Apply two coats of the product using the PV 43 stainless steel trowel, **1** smoothing the product upwards and towards the veins created by METEORE 12, so that the gel remains inside the cracks and a very thin layer is found on the smooth part of METEORE 12.

Wait 12 hours at 20°C between the first and second coats, and apply the second coat only once the surface is 'touch dry', namely, if there are no fingerprints after touching the surface and applying pressure. Nonetheless, do not wait more than 24 hours at 20°C.

Once the job has been completed, and within 18–24 hours at 20°C, the surface can be touched-up, using the stainless steel trowel and spreading the GEL without leaving any product on the smooth part.

MATT FINISHING (ON WALLS AND FLOORS): To obtain a matt and smoother



STAINLESS STEEL TROWEL PV 43



BRUSH PV 105



SPRAYER PV 106

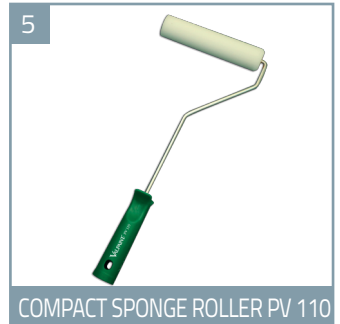
final effect, wait 18–24 hours at 20°C so that the GEL can solidify. Subsequently, sand only the lumps and imperfections with 400/500-grit sandpaper, then apply two coats of bi-component TOP COAT AR70 Matt using the PV 109 ⁴ or 110 ⁵ compact sponge roller. TOP COAT AR70 Matt must be catalysed with CT80 mixing thoroughly.

Alternatively, it is possible to use the single-component FINISH V 19 Matt. In both cases, wait 4 hours at 20°C between the first and second coats.

GLOSSY FINISHING (RECOMMENDED ON FLOORS AND OPTIONAL ON WALLS): As with the matt finishing, to make the surface smooth and even while retaining a glossy final effect, wait 18–24 hours at 20°C to allow the GEL to solidify. Subsequently, sand only the lumps and imperfections with 400/500-grit sandpaper, then apply two coats of bi-component TOP COAT AR60 Glossy using the PV 109 ⁴ or 110 ⁵ compact sponge roller. The TOP COAT AR60 Glossy must be catalysed with CT80 mixing thoroughly. Also in this case, wait 4 hours at 20°C between the first and second coats.



COMPACT SPONGE ROLLER PV 109



COMPACT SPONGE ROLLER PV 110

APPLICATION CYCLE FOR SMOOTH EFFECT

SKIM COATING WITH METEORE 12: Colour METEORE 12 with the relevant amount of COLORI' colouring paste. Alternatively, the VALCLONE Dispensing System may be used.

After 24 hours at 20°C from the application of RASANTE DDS or STUCCO SB30, or after 4 hours at 20°C if the STUCCO SL20 filler was used, apply one coat of METEORE 12 as a skim coat, ¹ leaving a sufficiently thick layer to make the surface level, smooth and free of grooves or lumps.

FINISHING WITH METEORE 12: After 8 hours at 20°C, apply METEORE 12 once again using the PV 43 stainless steel trowel, ¹ finishing it immediately with trowel strokes in all directions and without reworking the surface. Spray the surface with water using the PV 106 sprayer ³ to make the finish as smooth and compact as possible. After 12 hours at 20°C, sand the surface with 220-grit sandpaper in order to obtain a smooth and even surface free of lumps, grooves and wrinkles.

MATT OR GLOSSY FINISHING (ON WALLS AND FLOORS): After 8 hours at 20°C, complete the decoration with the TOP COAT to obtain a matt or glossy final effect. Apply two coats of TOP COAT AR70 Matt or TOP COAT AR60 Glossy using the Mohair PV 31 wool roller. ⁶

Both the TOP COATS are bi-component and must be catalysed with CT80 and mixed thoroughly.

Wait 4 hours at 20°C between the first and second coats.



STAINLESS STEEL TROWEL PV 43



MOHAIR WOOL ROLLER PV 31

APPLICATION CYCLE FOR OTHER DECORATIVE EFFECTS AND

SKIM COATING WITH METEORE 12: After 24 hours at 20°C from the application of the SKIM COAT DDS or STUCCO SB30, ¹ or after 4 hours at 20°C if the FILLER SL20 filler was used, apply one coat of METEORE 12 as a skim coat, ³ leaving a sufficiently thick layer to make the support level and smooth.

FINISHING WITH METEORE 12: After 8 hours at 20°C, apply METEORE 12 once again using the PV 43 stainless steel trowel, ¹ finishing it immediately



SPRAYER PV 106

with trowel strokes in all directions and without reworking the surface. Spray the surface with water using the PV 106 Sprayer **3** to make the finish as smooth and compact as possible. After 12 hours at 20°C, sand the surface with 220-grit sandpaper in order to obtain a smooth and uniform surface free of lumps, grooves and wrinkles.

A) DECORATION WITH OTHER DECORATIVE EFFECTS: After 12 hours at 20°C, you can apply one of the following decorative products: ARTECÒ 7, ARTECÒ 7 METAL, MAVERICKS, KLONDIKE, KLONDIKE FERRO + FINISH V 16, KLONDIKE LIGHT, POLISTOF, SABULADOR LUX, SABULADOR MATT, SABULADOR SOFT, VALSETIN and VALSETIN 2, following the instructions appearing, including on primers, in the specific catalogue of the chosen product.

B) DECORATION with Wallpaper (also paper printed with a plotter): Alternatively to decorative products, after 12 hours at 20°C the wallpaper, or the paper printed with the plotter, can be positioned by rigorously observing the specific application cycle to ensure optimal anchorage to the support.

APPLYING THE GEL: After 12 hours at 20°C (or the time indicated by the wallpaper manufacturer to ensure full drying of the glue), apply GEL EP40, which must be catalysed with CT50. Mix it thoroughly with a spatula and ensure that the product clinging to the walls of the can reaches the centre so that it can be amalgamated properly.

The pot life in the can is 20 - 25 minutes at 20°C, therefore we suggest not mixing the product for more than 3 minutes. Once applied, the product can be worked on the support for up to roughly 1 hour at 20°C.

Apply one coat using the PV 43 stainless steel trowel **1** and smooth the surface with strokes in all directions.

After 12 hours at 20°C, apply the second coat only if the surface has been decorated with SABULADOR LUX, MATT or SOFT, or MAVERICKS. Also in this case, the surface must be "touch dry", in other words, no fingerprint must be left after touching the surface and applying pressure.

Do not wait more than 24 hours at 20°C; otherwise, sand the surface using 220-grit sandpaper before applying the second coat.

N.B.: The GEL must be applied on the wallpaper up to 1 cm beyond the outer edges of the paper, in order to prevent water and humidity from coming into contact with the latter.

MATT FINISHING (ON WALLS AND FLOORS): To obtain a matt and more uniform final effect, wait 18 - 24 hours at 20°C so that the GEL can solidify. Subsequently, sand only the lumps and imperfections with 400 / 500-grit sandpaper, then apply two coats of bi-component TOP COAT AR70 Matt using the PV 109 **4** or 110 **5** compact sponge roller. TOP COAT AR70 Matt must be catalysed with CT80 mixing thoroughly. Wait 4 hours at 20°C between the first and second coats.

GLOSSY FINISHING (RECOMMENDED ON FLOORS AND OPTIONAL ON WALLS): As with the matt finishing, to make the support more uniform while retaining a glossy final effect, wait 18 - 24 hours at 20°C to allow the GEL to solidify. Subsequently, sand only the lumps and imperfections with 400 / 500-grit sandpaper, then apply two coats of bi-component TOP COAT AR60 Glossy using the PV 109 **4** or 110 **5** compact sponge roller. The TOP COAT AR60 Glossy must be catalysed with CT80 mixing thoroughly. Also in this case, wait 4 hours at 20°C between the first and second coats.



STAINLESS STEEL TROWEL PV 43



SPRAYER PV 106



COMPACT SPONGE ROLLER PV 109



COMPACT SPONGE ROLLER PV 110

APPLICATION ON CORNERS AND EDGES

To facilitate the correct application of the VALPAINT I-E-VOLUTION cycle in right angles and sharp edges, it is possible to use the specific shaped stainless steel trowel for internal corners PV 123 **6** and the shaped stainless steel trowel for external corners PV 124. **7**

If the edge is not perfectly smooth and well consolidated, but on the contrary it is flaked or fragile, it must be restored with the use of RASANTE DDS + B60, to be applied with a stainless steel trowel PV 43 or with the specific stainless steel trowel shaped for external corners PV 124.



Containers and Coverages:

PRODUCT	CONTAINER	RESA
SIGILLANTE SG15	LT. 0,125	///
RASANTE DDS + B60	KIT da Kg. 1,5 KIT da Kg. 4,0	1,5 m ² with one coat depending on the type of surface 4 m ² with one coat depending on the type of surface
STUCCO SL20	LT. 0,250 - 0,500	///
STUCCO SB30 + CT90	KIT da Kg. 0,4	///
METEORE 12	LT. 1 - 4 - 12	SKIM COATING: 2 - 2.5 m ² /l one coat on a smooth surface FINISHING: 1 - 1.5 m ² with one coat
SABULADOR SOFT	LT. 1 - 2,5 - 5	14 - 16 m ² /l with two coats to cover the surface with the Marbled Effect
GEL EP40 + CT50	KIT da Kg. 0,4 KIT da Kg. 1	3.6 - 4 m ² with one coat / 1.8 - 2 m ² with two coats 9 - 10 m ² with one coat / 4.5 - 5 m ² with two coats
TOP COAT AR60 LUCIDO + CT80	KIT da Kg. 0,4 KIT da Kg. 1	5 - 8 m ² with two coats on GEL EP40 / 2.8 - 3.6 m ² with two coats on METEORE 12 12 - 20 m ² with two coats on GEL EP40 / 7 - 9 m ² with two coats on METEORE 12
TOP COAT AR70 OPACO + CT80	KIT da Kg. 0,4 KIT da Kg. 1	5 - 8 m ² with two coats on GEL EP40 / 2.8 - 3.6 m ² with two coats on METEORE 12 12 - 20 m ² with two coats on GEL EP40 / 7 - 9 m ² with two coats on METEORE 12
FINISH V19 OPACO	LT. 0,250 - 0,500	14 - 16 m ² /l with two coats only for Marbled Effect
GEL RIPARATORE SOS24	GR. 45	///

Application temperature: above +5°C and below +30°C. For GEL and SKIM COAT DDS, avoid applying it at temperatures below +15°C and in the presence of humidity (rainy or foggy days with air humidity levels above 75%), and also avoid applying it at temperatures above +30°C.

Drying of the GEL: dust-free after roughly 6 hours at 20°C. Dry after 10–12 hours at 20°C. Hardens after 18 - 24 hours at 20°C and can be trampled over after 48 hours at 20°C.

Drying of the TOP COAT: dust-free after roughly 20 minutes at 20°C. Dry after 1 hour at 20°C. Hardens after 4 hours at 20°C and can be trod after 24 hours at 20°C.

Drying times for the VALPAINT E-VOLUTION system: hardens after 7 days at 20°C and reaches optimal resistance to static loads after 28 days.

Resistance: after complete hardening, a film forms that is resistant to water, vapour, heat and abrasion.

Equipment cleaning: with methylated spirits.

Storage: make sure that the can is tightly closed, even after use, and store at a temperature between +5°C and +30°C.

ADDITIONAL SUGGESTIONS FOR CORRECT APPLICATION:

- a) It is good practice to bring the temperature of GEL EP40 and CT50 to 15 - 20°C before the catalysis process, by heating them with a hair dryer in the cold season and keeping them cool in the warmer months.
- b) Avoid applying GEL EP40 when the support or the surrounding environment have temperatures lower than 15°C and higher than 30°C.
- c) Make sure that the wall or the final layer of paint, on which GEL EP40 must be applied, is perfectly dry; if not, wait until it dries out.
- d) The can with the non-catalysed product must be immediately closed to prevent humidity and carbon dioxide from penetrating the product.
- e) If the room must be heated before applying GEL EP40, use radiators, dehumidifiers or electric heaters (avoid open flames).
- f) Do not exceed the POT-LIFE and check the viscosity increase of GEL EP40, as well as the temperature of the can. If it increases considerably with respect to the starting phase of the catalysis, throw the product away and catalyse a new quantity.

SPECIAL SAFETY INSTRUCTIONS: Avoid direct contact with the skin. Protect the eyes and face. In the event of contact, rinse immediately and thoroughly with water and consult a doctor. The equipment must not be washed in watercourses, drains, etc.

USER PRECAUTIONS:

N.B.: the information provided herein is, to the best of our knowledge, correct and accurate. However, considering that the conditions in which the products are used are not under our control, we shall not be held liable for any recommendations or advice provided. We recommend testing a full application cycle on a small area to check the outcome. Subsequently, proceed with the application of the product while constantly monitoring the resulting decorative effects, since the VALPAINT E-VOLUTION decorative system is made with natural ingredients and special resins that react differently depending on the application method. Each application cycle will therefore acquire its own unique character.

The shades can vary from those shown in the catalogue by 15% to 20%, and can also vary between different batches. When working with different batches, finish working in a corner and then mix the remaining product with that of the new batch in a large container before proceeding further.

N.B.: we suggest that you carefully view the video tutorial for the effect you wish to obtain before applying the product.

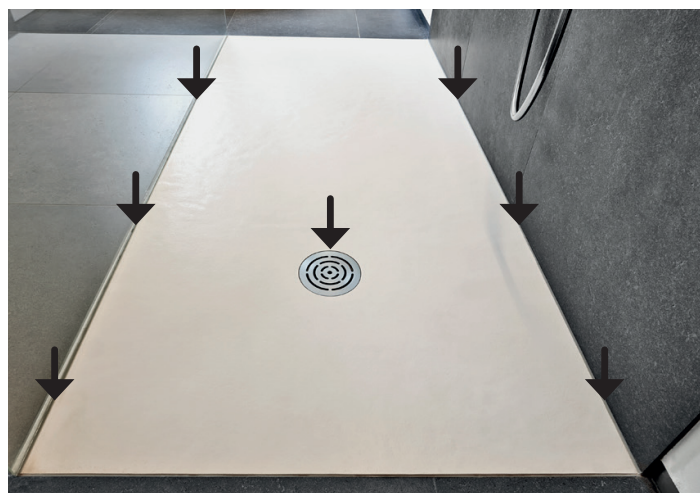
TREATING SHOWER CABINS AND RETOUCHING

We recommend applying SEALANT SG15 to drainage grilles or channels, as well as around the perimeter of the shower tray.

SEALANT SG15 is easy to use, dries quickly and can be painted over after 2 hours at 20°C. It is also a high-performance product, being highly elastic, up to 350%, and resistant to mould.

Since it is easy to shape and is hygrosetting, SEALANT SG15 can also be applied to substrates with up to 15% humidity and in all difficult areas, to a thickness of at least 1 mm.

It permanently solves water-tightness problems in all points where materials are in contact with VALPAINT E-VOLUTION (metal, ceramic, glass, wood, cement), such as drainage channel unions.



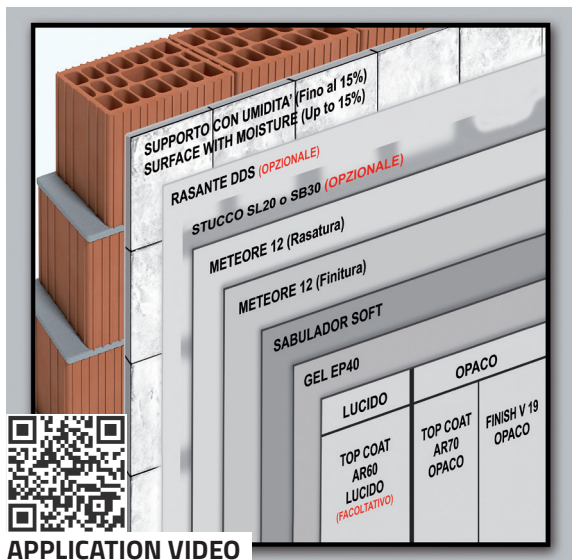
These critical points must be treated to prevent problems with cracking around unions and assure a longer duration of the treatment. After applying SEALANT SG15, it is possible to apply SKIM COAT DDS and the remaining cycle of the specific effect to be created.

WARNING: if micro-cracks should appear on the above-mentioned supports, due to slight expansion movements between the reciprocal materials or structural settling, the surface can be repaired with REPAIR GEL SOS24. The REPAIR GEL SOS24 can be used to touch up surfaces decorated with the VALPAINT E-VOLUTION system. It also adheres to ceramic, glass, leather, wood, metal, concrete and many other materials. It comes with a special dual-cartridge dispenser that is easy to use. This, together with its versatility and the precision of the dispenser, makes it ideal for restoring critical points.

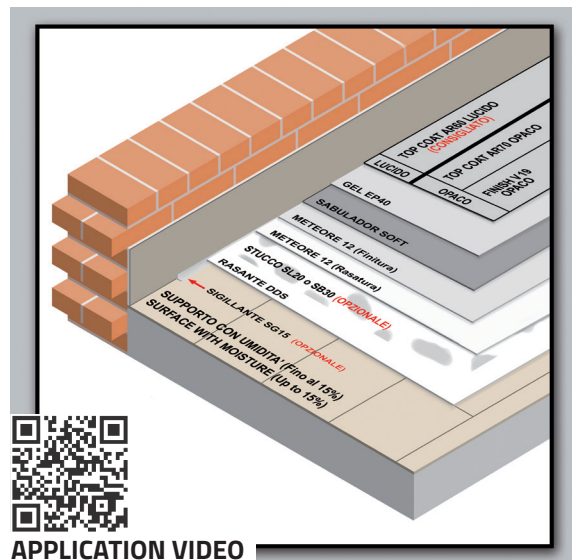
After applying REPAIR GEL SOS24, smooth the surface with a spatula or brush.

APPLICATION CYCLE, IMAGES AND VIDEOS

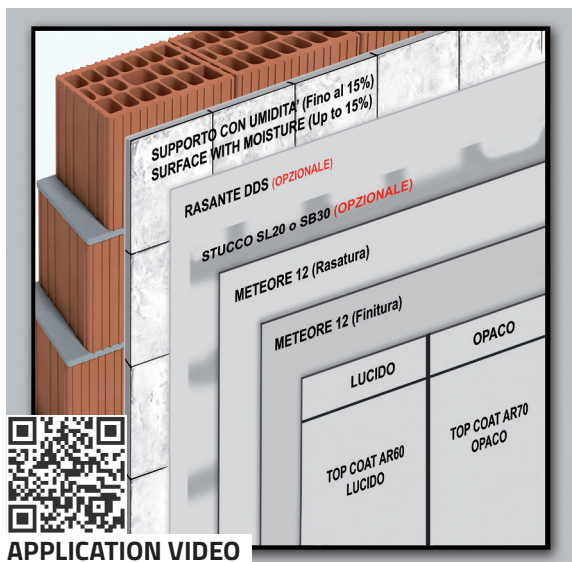
MARbled EFFECT WALL



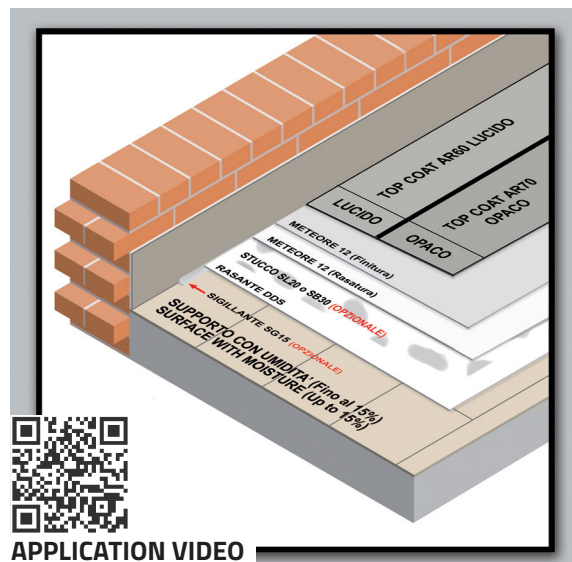
MARbled EFFECT ON THE FLOOR



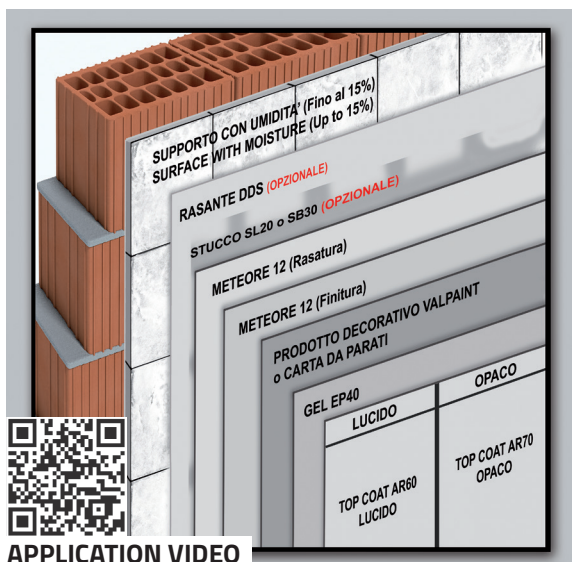
SMOOTH EFFECT WALL



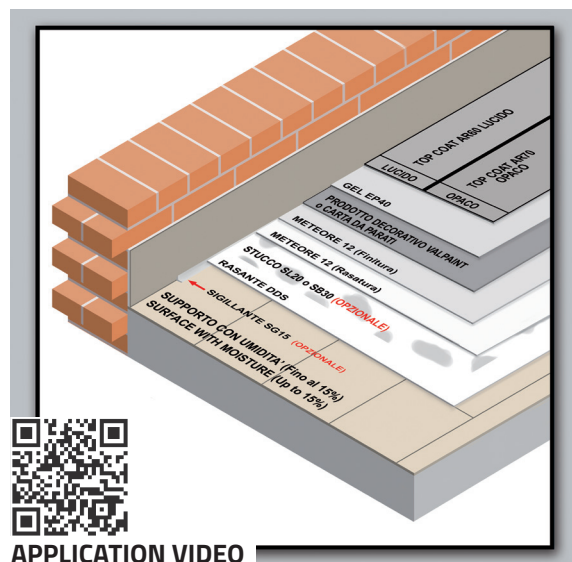
SMOOTH EFFECT ON THE FLOOR



OTHER DECORATIVE EFFECTS AND WALLPAPER WALL



OTHER DECORATIVE EFFECTS AND WALLPAPER ON THE FLOOR



FOCUS ON SIGILLANTE SG15

Odourless multi-purpose sealant featuring excellent adhesion and elasticity. Dries rapidly.

- Ultra-elastic (stretches up to 350%)
- Withstands mould build-up, ideal for damp environments
- Moisture-curing
- Easy to work, adapts to the most difficult areas
- Excellent adhesion without primer on all conventional materials
- Can be coated over after only 2 hours
- Ecological: VOC-free, does not contain solvents nor isocyanates
- Class A+ pursuant to the regulations on indoor air quality



FOCUS ON GEL RIPARATORE SOS24

Transparent dual-cartridge epoxy resin, ready for use. Versatile for multiple applications, ultra-resistant with high gloss.

- Ideal for repairing defects or micro-cracks on VALPAIN E-VOLUTION caused, for example, by minor expansion fissures or structural adjustments
- Suitable also for refurbishments or for bonding ceramic, glass, leather, wood, metal, concrete surfaces, etc.
- Equipped with two mixing nozzles. Does not dirt and – thanks to its special dispenser – can be easily applied to difficult and narrow areas.



APPLICATION VIDEO



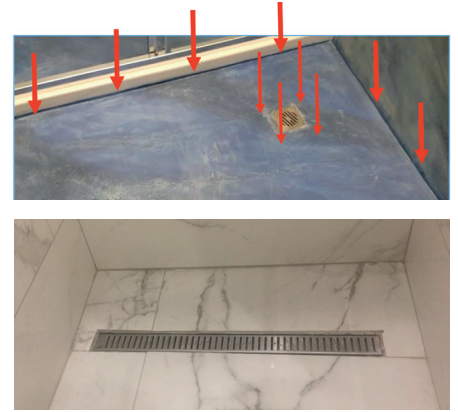
FOCUS ON STUCCO SB30 + CT90

Bi-component epoxy filler for grouting or repairing peeled parts / holes on cement.

- Excellent adhesion on ceramic, cement and many other clean materials free of grease and any substances that can cause the product to detach
- Fluid ceramic: completely impermeable to water and humidity, isolates the substrate making the surface even and continuous
- Withstands mould build-up, ideal for damp environments
- Does not shrink
- FREE of APEO, IPA, ammonia and formaldehyde

SEALING OF TAP FITTINGS AND WATER DRAINAGE GRATINGS

All edges around tap fittings, drainage channels and shower plates, and all points where different materials join, must be perfectly sealed before starting the job, in order to prevent water and moisture infiltrations. Once the latter penetrates under the GEL, it searches for a way out and tends to opacify when it remains trapped inside, causing the penetrated surface to whiten.



SHELL OF CONNECTION

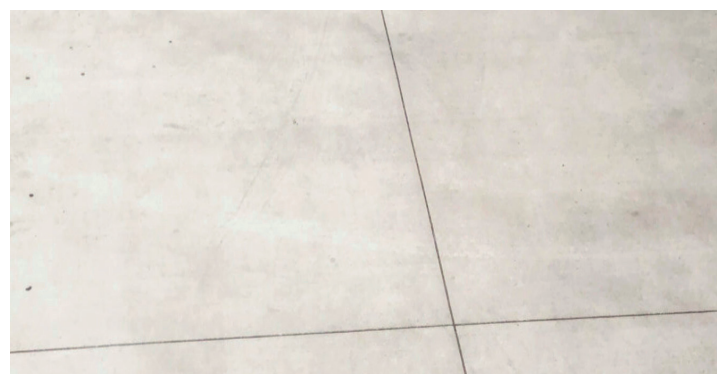
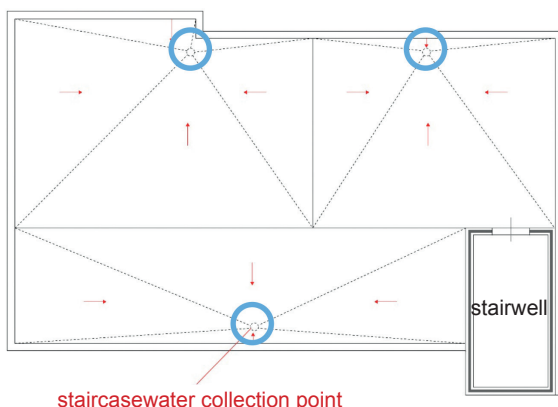
If the decorative effect must be achieved on the floors and walls alike, before starting the job, SIGILLANTE SG15 must be applied also to the points where the wall and floor meet, creating a layer a few millimetres thick to form a “cove” around the entire perimeter of the floor, at least a couple of centimetres high.

The connection shell serves not only to make the continuous surface more hygienic, as it avoids the nesting of dirt and germs that would settle on the sharp edge, but also allows you to accommodate any small movements and cushion small vibrations that inevitably go to stress the fittings due to the impact load, or the continuous opening and closing of doors and windows. By creating the connection shell with a highly elastic and anti-mold material such as the SG15 Sealant, cracks and unsightly cracks are limited in correspondence with the connection between the vertical surface and the horizontal surface



SLOPE AND JOINT CONTROL

Prevent water puddles from forming on the surface to be decorated with VALPAINT E-VOLUTION, by adjusting the slopes before starting the job, if they are not suitable for draining water. Level the surface using Rasante DDS skim coat or Stucco SB30 filler for small surfaces. Moreover, any construction joints, insulation joints or contraction joints on the surface to be decorated should be left free to allow for possible deformation. These, therefore, should not be filled or linked together for any reason. If any joints in the surface have been filled with dust or previous treatments, these should be reopened using suitable tools.



WRONG CATALYSIS AND CARBONATION OF GEL EP40

▪ OPACIFICATION DUE TO THE USE OF CATALYSED RESIN

Once the product has been catalyzed in a can, it is defined as POT-LIFE and indicates the time that the applicator has available before the material is no longer applicable.

For GEL EP40 + CT50 the declared pot-life values refer to a mass of 1 kg and a temperature of 23 ° C, and is equal to 20 - 25 minutes. As the catalyzed mass and / or external temperature increase, the pot-life decreases (approximately for an increase of 10 ° C, the processing time is half reduced).

It is therefore very important not to apply the product if pot-life times are exceeded.

It is good practice to keep under control the increase in viscosity and temperature of the catalyzed material inside the can. When one of these two conditions occurs, the pot-life is ending, and the application must be stopped and a new packaging catalyzed

NB. Continuing the application with a partially catalysed material causes whitening, which, unfortunately, can only be eliminated by removing the opacified resin and applying the product again.



▪ OPACIFICATION DUE TO CARBONATION

Carbonation is a reaction that occurs between PART B of the product, the moisture in the air and the carbon dioxide present. This reaction causes carbamates to form, which make up the white patina on the surface of the GEL applied. Normally, no visible effect can be noted, but as the resin tends to solidify, opaque marks start to appear in certain areas. This phenomenon normally occurs in winter when there are high levels of moisture in the air and support.

To prevent these unappealing marks: do not apply GEL EP40+ CT50 if air and surface temperatures are inferior to 15°C or superior to 30°C.

Ideally, the product should not be applied on rainy or humid days and in the early hours of the morning, when the temperatures are particularly low and there is high humidity, for example in summer, during the hottest hours. If the moisture content of the last layer of paint before GEL EP40 is applied exceeds 3%, it is good practice to avoid applying the product and to wait until the surface dries completely.

In heating the room where GEL EP40 must be applied, do not use stoves fired with methane, kerosene or open flames, as they produce high amounts of CO₂. Use electric stoves, radiators or dehumidifiers instead.

CORRECT STORAGE OF GEL EP40, STUCCO SB30 AND RASANTE DDS

Ideally, the temperatures of the GEL EP40, RASANTE DDS and STUCCO SB30 should hover between 15°C and 20°C. In winter, it is advisable to heat the material with a hair dryer or place it above a radiator, raising it to the above temperature before catalysing it. On the contrary, in summer it should be kept cool. The non-catalysed product that has not been used must be immediately re-closed. If left open, it could absorb moisture and carbon dioxide, thus enhancing the carbonation reaction.

NB: The chemistry of the raw materials used is studied to diminish similar occurrences, but certain precautions should nonetheless be taken.

We recommend that you equip yourself with instruments suitable for measuring temperature and humidity, both environmental and that of the application support (environmental and material thermohygrometer).

TEMPERATURE AND HUMIDITY MEASUREMENT INSTRUMENTS

1. ENVIRONMENTAL THERMOHYGROMETER

Used to measure environmental conditions, i.e. air TEMPERATURE and HUMIDITY.

HOW TO USE: When the instrument is switched on using the on/off switch, it immediately reads the temperature and humidity in the air. To lock the reading, press the side button marked "MAX MIN".

If you need to view the minimum and maximum values measured since the instrument was switched on, press the "MAX MIN" button once again and the values will be displayed on the screen.

We recommend removing the instrument from its case and leaving it in the room to be measured for at least 2-3 minutes before switching it on. For an optimal reading, we recommend waiting at least one minute after switching on the instrument so that the reading will be more accurate.



The instrument's range is as follows:

- from 0 to 100% for relative humidity;
- from -20 to +60°C for temperature.

IMPORTANT NOTES: Before applying VALPAINTE-VOLUTION, it is advisable to check the environmental conditions as well as the conditions of the support. In other words, make sure that the ambient temperature is not too low or the level of humidity too high. These values might affect both the application, making it more difficult or even problematic, and the catalysis and subsequent drying of the product. Before applying the product, the temperature should be between +5°C and +30°C. For GEL EP 40, RASANTE DDS and STUCCO SB30, avoid application at temperatures lower than +15°C and in the presence of

humidity (on rainy or foggy days, with an air humidity level higher than 75%). Application with temperatures above +30°C should also be avoided.

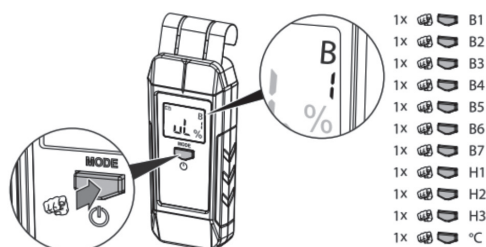
2. HUMIDITY GAUGE FOR MATERIALS

Used to measure the level of HUMIDITY in the support to be treated (cement, wood...) before proceeding with the VALPAINT E-VOLUTION cycle.

The instrument is easy to use and non-invasive in that it doesn't damage the surface.

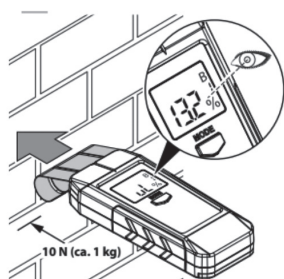
It is equipped with capacitive sensors made from metal (electrodes), which measure the humidity level when placed in contact with the material. For increased accuracy, you can select the type of material to be gauged, choosing from 10 options listed on the back of the instrument.

HOW TO USE: Switch on the gauge by holding down the on/off button for one second. Press the on/off button once again to select the type of material, represented by initials on the screen.



At this point, the sensors can be placed against the material for reading, applying light pressure. View the reading on the screen: "uL" means that the level of humidity is higher than the maximum that can be gauged by the device (20% or 50% based on the material). The gauge can also measure the ambient temperature, between -10°C and +55°C. Switch the instrument off after use by holding down the on/off button for 2 seconds.

IMPORTANT NOTES: Before applying VALPAINT E-VOLUTION, always check the humidity level of the support. If it is less than 15%, you have to use RASANTE DDS, as a vapour barrier. If it is less than 3% and you are working on the wall, you can apply METEORE 12 directly without using RASANTE DDS, which should be used in all other instances. If the humidity level is higher than 15%, or if the instrument displays "uL", you should not apply VALPAINT E-VOLUTION, even with the use of RASANTE DDS as a vapour barrier. In this case, you should wait until the humidity falls below 15%.



PERFORMANCES AND TESTS CONDUCTED

CHARACTERISTIC	PRODUCT	STANDARD	VALUE	LOGO
IMPACT RESISTANCE (BALL DROP TEST)	VALPAINT E-VOLUTION (GEL EP40) VALPAINT E-VOLUTION (TOP COAT AR60 / AR70)	ISO 6272-2	PASSED 2 kg from h= 1,55m 1 kg from h= 1m	ISO 6272-2  IMPACT
SLIDING RESISTANCE SCOF	VALPAINT E-VOLUTION (GEL EP40) VALPAINT E-VOLUTION (TOP COAT AR60) VALPAINT E-VOLUTION (TOP COAT AR70)	ASTM C1028-07	0,70 (wet surface) 0,70 (dry surface) 0,80 (dry surface)	ASTM C1028-07  FRICTION
BOND STRENGHT ON TILE CERAMIC TILE	RASANTE DDS + B60 METEORE 12 GEL EP40 + CT50	UNI EN 1542	>5,9 Mpa >2,2 Mpa >3,5 Mpa	UNI EN 1542  ADHESION
SCRATCH RESISTANCE (PENCIL HARDNESS)	VALPAINT E-VOLUTION (GEL EP40) VALPAINT E-VOLUTION (TOP COAT AR60 / AR70)	ASTM D3363-05	H - HB	ASTM D3363-05  HARDNESS
WET-SCRUB RESISTANCE Loss in weighth of the sample after 200 cycles	GEL EP 40 + CT50	UNI EN ISO 11998	< 30 mg L=2,5gr/m ²	UNI EN ISO 11998  ABRASION
WASHABILITY	FINISH V 19 OPACO TOP COAT AR60 + CT80 TOP COAT AR70 + CT80	UNI 10560	5000 cycles >25.000 cycles >25.000 cycles	UNI 10560  WASHABILITY
GLOSS	VALPAINT E-VOLUTION (GEL EP 40) VALPAINT E-VOLUTION (FINISH V19) VALPAINT E-VOLUTION (TOP COAT AR60) VALPAINT E-VOLUTION (TOP COAT AR70)	UNI EN ISO 2813	92,6 GU (HIGH GLOSS) 7,6 GU (LOW GLOSS) 72,4 GU (HIGH GLOSS) 5,8 GU (LOW GLOSS)	
SHORE HARDNESS	VALPAINT E-VOLUTION GEL EP40 + CT50 GEL RIPARATORE SOS24 RASANTE DDS + B60	ASTM D2240-15	75 Shore D 75 Shore D 60 Shore D 80 Shore D	ASTM D2240-15  SHORE D
WATER VAPOR TRANSMISSION PROPERTIE	RASANTE DDS + B60	UNI EN ISO 7783	Sd = 2,06 m μ=2061,67 (VAPOUR BARRIER)	UNI EN ISO 7783  VAPOR BARRIER
RESISTANCE TO REVERSE AND DIRECT HYDROSTATIC PRESSURE	RASANTE DDS + B60	UNI 8298-8	150 KPa (15 m di H ₂ O)	UNI 8298-8  HYDROSTATIC
PUNCHING RESISTANCE	VALPAINT E-VOLUTION	UNI 8298-3	PS3	UNI 8298-3  PUNCHING

CHEMICAL RESISTANCE OF GEL AND TOP COAT IN ACCORDANCE WITH THE ASTM D1308-02 STANDARD

CHEMICAL SUBSTANCE	RESULT	CHEMICAL SUBSTANCE	RESULT
Vinegar	Resistant	Toothpaste	Resistant
Muriatic acid	Resistant	Bathroom descaler	Resistant
Sulphuric acid H2SO4 5%	Resistant	Tomato sauce	Resistant
Water at 100°C	Resistant	Mayonnaise	Resistant
Alkalis (NaOH)	Resistant	Oil	Resistant
Ethyl alcohol	Resistant	Boiling oil	Resistant
Ammonia	Resistant	Fruit juice	Resistant
Shower gel	Resistant	Lemon juice	Resistant
Beer	Resistant	Urine	Resistant
Coffee	Resistant	Bleach	Resistant
Coca-Cola	Resistant	Red wine	Resistant

DETAIL OF THE TESTS AND PERFORMANCE OBTAINED

IMPACT RESISTANCE (Ball Drop Test) UNI EN ISO 7765

The impact resistance test simulates the fall of an object from a certain height on the surface paved with VALPAINT E-VOLUTION. Spherical masses are dropped with constant weight increase, from variable heights starting from 0.6 m up to 1.5 m. The behavior of the tested material is determined visually below: until the material is damaged, the test is positive.

IMPACT RESISTANCE (BALL DROP TEST)	VALPAINT E-VOLUTION (GEL EP40) VALPAINT E-VOLUTION (TOP COAT AR60 / AR70)	ISO 6272-2	PASSED 2 kg from h= 1,55m 1 kg from h= 1m	ISO 6272-2  IMPACT
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SLIDING RESISTANCE ASTM C1028-07

The slip resistance measures the anti-slip characteristic of the floors. SCOF is a static friction coefficient that measures friction with the horizontal surface on a scale from 0 to 1. The American standard ASTM C1028-07 recommends a minimum coefficient of 0.6.

SLIDING RESISTANCE SCOF	VALPAINT E-VOLUTION (GEL EP40) VALPAINT E-VOLUTION (TOP COAT AR60) VALPAINT E-VOLUTION (TOP COAT AR70)	ASTM C1028-07	0,70 (wet surface) 0,70 (dry surface) 0,80 (dry surface)	ASTM C1028-07  FRICTION
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MEASUREMENT OF BOND STRENGTH BY PULL-OFF EN ISO 1542

The test consists in exerting direct traction on the material to be tested, using steel plugs made to adhere to the product surface. It is used to measure the adhesion force between the application substrate (tiles, concrete, ...) and the VALPAINT E-VOLUTION coating.

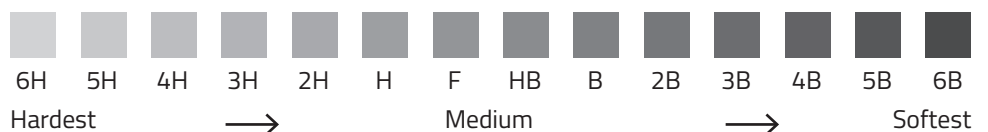
The technical quality of the resinous coatings (UNI 10966) establishes as a minimum resistance value, a cohesion force ≥ 1.5 MPa.

BOND STRENGTH ON TILE	RASANTE DDS + B60 METEORE 12 GEL EP40 + CT50	UNI EN 1542	>5,9 Mpa >2,2 Mpa >3,5 Mpa	ASTM C1028-07  FRICTION
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SCRATCH RESISTANCE (PENCIL HARDNESS) ASTM D3363-05

Scratch resistance is used by the coating industry to determine the hardness of paints and inks. The test is based on a British hardness scale ranging from H (hard pencil) to B (soft pencil).

The test simulates the effect of a blunt instrument that is dragged onto VALPAINT E-VOLUTION. Depending on the hardness of the coating, the mechanical pressure of this object can leave more or less deep incisions and deformations and invalidate the aesthetic and functional qualities of the flooring.



SCRATCH RESISTANCE (PENCIL HARDNESS)	VALPAINT E-VOLUTION (GEL EP40) VALPAINT E-VOLUTION (TOP COAT AR60 / AR70)	ASTM D3363-05	H - HB	ASTM D3363-05  HARDNESS
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WET SCRUB RESISTANCE UNI EN ISO 11998

The resistance to wet abrasion therefore simulates the loss of material as a result of the mechanical cleaning action or more generally of rubbing due to the passage of people on a pavement.

The specimen is weighed before and after the test, and the weight difference detected determines the result in milligrams of material removed on a given surface.

WET-SCRUB RESISTANCE Loss in weight of the sample after 200 cycles	GEL EP 40	UNI EN ISO 11998	< 30 mg L=2,5gr/m ²	UNI EN ISO 11998  ABRASION
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WET SCRUB RESISTANCE UNI EN ISO 11998

The resistance to wet abrasion therefore simulates the loss of material as a result of the mechanical cleaning action or more generally of rubbing due to the passage of people on a pavement.

The specimen is weighed before and after the test, and the weight difference detected determines the result in milligrams of material removed on a given surface.

WET-SCRUB RESISTANCE Loss in weight of the sample after 200 cycles	FINISH V 19 OPACO TOP COAT AR60 + CT80 TOP COAT AR70 + CT80	UNI 10560	5000 cycles >20.000 cycles >20.000 cycles	UNI 10560  WASHABILITY
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GLOSS MEASURE UNI EN ISO 2813

Gloss is a visual perception of the human eye of how much a given surface reflects light. It is measured in Gloss Unit (GU) on a scale ranging from 0 to 100.

Based on the value read by the instrument, the degree of gloss of the product can be determined:

- HIGH GLOSS with GU > 70
- MEDIO GLOSS with GU between 10 and 70
- LOW GLOSS with GU < 10

GLOSS	VALPAINT E-VOLUTION (GEL EP 40) VALPAINT E-VOLUTION (FINISH V19) VALPAINT E-VOLUTION (TOP COAT AR60) VALPAINT E-VOLUTION (TOP COAT AR70)	UNI EN ISO 2813	92,6 GU (HIGH GLOSS) 7,6 GU (LOW GLOSS) 72,4 GU (HIGH GLOSS) 5,8 GU (LOW GLOSS)	
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SHORE D HARDNESS ASTM D2240-15

The Shore D hardness represents the resistance of VALPAINT E-VOLUTION to permanent deformations.

The most used hardness scales are "Shore A" and "Shore D", respectively for materials of lower and higher hardness. A value ranging from 0 to 100 is read from the measuring instrument; the closer the value read approaches one hundred, the harder the material tested.

SHORE HARDNESS	VALPAINT E-VOLUTION GEL EP40 + CT50 GEL RIPARATORE SOS24 RASANTE DDS + B60	ASTM D2240-15	75 Shore D 75 Shore D 60 Shore D 80 Shore D	ASTM D2240-15  SHORE D
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WATER VAPOR TRANSMISSION UNI EN ISO 7783

This characteristic expresses the ability of Rasante DDS to let water vapor pass through it. The higher the Sd value, the more waterproof the product.

The legislation frames the Sd values in three permeability classes:

- Class I (high *) Sd < 0.14 m
- Class II (medium *) Sd from 0.14 to 1.4 m
- Class III (low *) Sd > 1.4 m

This performance can also be expressed with a size that is equally known and used in building materials: the water vapor permeability coefficient μ . The higher this value, the more waterproof the product. A list of typical values of μ in the table opposite.

Sd = 2.06 m corresponds, for a film thickness of 1 mm, to $\mu = 1030.84$ i.e. the Rasante DDS is more waterproof than a standard polyurethane

MATERIAL	μ
Lime and cement plaster	15
Gypsum plaster (smoothing)	6,2
Heavy concrete	80-100
Expanded clay concrete (hollow blocks)	7-10
Solid or perforated brick walls	6-6,08
Polystyrene	10-210
Polyurethane	50-100
Bituminous paper felt.	3640-18280

WATER VAPOR TRANSMISSION PROPERTIES	RASANTE DDS + B60	UNI EN ISO 7783	Sd = 2,06 m $\mu = 2061,67$ (VAPOUR BARRIER)	UNI EN ISO 7783  VAPOR BARRIER
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RESISTANCE TO REVERSE AND DIRECT HYDROSTATIC PRESSURE UNI 8298-8

The resistance to direct and inverse hydrostatic pressure is one of the significant characteristics for the quality of the resinous coatings, in fact there is often the problem of preserving the surfaces from water infiltrations and insidious rising damp. Rasante DDS has been specifically designed for "wet" substrates, and has proved impermeable to water up to 150 kPa, which corresponds to a water column of 15m, both in positive and negative thrust. The positive thrust represents the water that acts directly on the product, while the negative thrust represents the thrust of the water that comes from under the flooring.

RESISTANCE TO REVERSE AND DIRECT HYDROSTATIC PRESSURE	RASANTE DDS + B60	UNI 8298-8	150 KPa (15 m di H ₂ O)	UNI 8298-8  HYDROSTATIC
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PUNCHING RESISTANCE UNI 8298-3

The resistance to static punching measures the deformation of the product under the prolonged action of a punctual load (for example, simulates the feet of a piece of furniture or the prolonged action of a fixed piece of furniture).

Based on this deformation, the coating is classified:

- PS1: residual deformation after 24 hours without load $\leq 50\mu\text{m}$;
- PS2: residual deformation after 24 hours without load 51 - 100 μm ;
- PS3: residual deformation after 24 hours without load 101 - 200 μm ;
- PS4: residual deformation after 24 hours without load $\geq 201\mu\text{m}$.

PUNCHING RESISTANCE	VALPAINT E-VOLUTION	UNI 8298-3	PS3	UNI 8298-3  PUNCHING
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ISO 6272-2

**IMPACT**

UNI EN 1542

**ADHESION**

UNI 8298-3

**PUNCHING**

ASTM D3363-05

**HARDNESS**

ASTM D2240-15

**SHORE D**

UNI EN ISO 11998

**ABRASION**

ASTM C1028-07

**FRICTION**

UNI 8298-8

**HYDROSTATIC**

UNI 10560

**WASHABILITY**

UNI EN ISO 7783

**VAPOR BARRIER****VALPAINT®**