

TECHNICAL DATA SHEET

BISANZIO

MINERAL BASED COLORED SYNTHETIC MICROSPHERES

GENERAL DETAILS

BISANZIO is an innovative material created in order to realize special decorative effects for walls and ceiling. The product is constituted by mineral based synthetic microspheres colored with one special chemical process that fixes the pigment to the microspheres in permanent way. The used pigments are of high quality and exterior resistant with the exception of Rosso Corallo. The material shows low specific weight and good resistance in heat/cold transmission.

BISANZIO must be added to a neutral converter that can carry microspheres and allows the application on the wall. The product is available in 3 different granular sizes and 12 colors, whose combination allows to obtain many decorative effects. It is possible to customize the product to the end-user's demand.

Granular size:

- | | | |
|-----------|----------------|---|
| 1. big | up to 0.50 mm; | apparent granular density 0.40-0.45 g/cm ³ |
| 2. medium | up to 0.35 mm; | apparent granular density 0.45-0.50 g/cm ³ |
| 3. small | up to 0.15 mm; | apparent granular density 0.60-0.65 g/cm ³ |

HANDLING – STABILITY

BISANZIO does not have problems of stability when kept in a dry place, at room temperature and in the original sealed containers. The maximum period of storage is 12 months. For hazardous information consult the MSDS.

APPLICATION AND USE

BISANZIO can be applied on different surfaces which must be prepared with proper paints. The surface must be smooth, dry and clean. A good levelling is suggested since a multicolour decoration could make evident the irregularities of the surface.

SURFACE'S PREPARATION

CEMENT BASED AND GIPSUM BASED PALSTERS:

- Be sure the palster is dry and aged at least 4 weeks.
- Provide consolidation if necessary.
- Use proper biocides in presence of algae or mould.
- Apply one coat of waterborne acrylic fixative.
- Apply two coats of quartz based paint for exterior in a colour similar or contrastant to Bisanzio tint, depending on required final effect.

OLD PAINTS:

- In case of detachments it is suggested to remove it.
- Level the wall. Apply filling products if necessary.
- Use proper biocides in presence of algae or mould.
- Apply one coat of waterborne acrylic fixative.
- Apply two coats of quartz based paint for exterior in a colour similar or contrastant to Bisanzio tint, depending on required final effect.

APPLICATION

BISANZIO can be applied by trowel, spray gun or brush.

Suggested weather conditions: Temperature +15 / +30°C; Relative humidity not over 75%.

In case of external application, protect from rain for 36-48 hours.

All tools should be cleaned with water immediately after use.

APPLICATION BY TROWEL

To apply **BISANZIO** by trowel it is suggested to use the following formula to make the neutral converter:

	%
WATER	28,850
Thickener (like NATROSOL 250 MBR)	0,300
Alkalinity agent (like NaOH sol. 10%)	0,100
Softening agent (like CALGON PT sol. 10%)	0,100
Wetting agent (like PEG 400)	0,500
Dispersing agent (like IDROPON LOGIC 40)	0,200
Biocide (like BIOPOL JM29)	0,150
PROPILENIC GLYCOL	1,900
Wax (like CERFOBOL R/75 or REP W 83)	1,500
Binder (like ALBUVIL DSA 760)	47,000
Coalescent (like COASOL)	0,600
MARBLE GRAINS 0,3-0,7 mm	15,000
Thickener (like COLLACRAL PU 85 sol. 5%)	3,000
Additive to improve substrate wetting (like BYK 349)	0,300
Antifoaming agent (like ATS 2081)	0,200
Antirust agent (like MACRIRUST M90)	0,300
	100,000

Characterization:

Viscosity: 3000 ± 500 cps

Specific weight: 1,12 ± 0,05 g/ml

pH: 7-8

Solids content: 40 ± 2%

To prepare the final product, it is suggested to respect the following ratio in weight between **BISANZIO** and converter basing on grain size:

BIG GRAINS	30% BISANZIO 70% NEUTRAL CONVERTER
MEDIUM GRAINS	35% BISANZIO 65% NEUTRAL CONVERTER
SMALL GRAINS	40% BISANZIO 60% NEUTRAL CONVERTER

The product is now ready to use, but it could also be diluted with 2-3% of water if necessary. Being a multicolour product it is suggested to stir it before application also when it is not used for a few minutes. For a better final effect, it is suggested to apply the second coat only when the first coat is completely dry. It is suggested not to press too much the product with the trowel during the application of second coat.

DILUTION: max 2-3% with water.

DRYING TIME at $T=23\pm 2^{\circ}\text{C}$ e $RH=50\pm 5\%$: touch dry 3-4 hours; completely dry 18-24 hours.

CHEMICAL PHYSICAL PROPERTIES

BIG GRAINS

SUGGESTED SPREADING RATE: 0,9 –1,0 Kg/m² per coat

VISCOSITY: 50000 ± 15000 cps

SPECIFIC WEIGHT: 0,95 ± 0,05 g/ml

SOLIDS CONTENT: 58 ± 2%

DRY FILM THICKNESS: 500 – 600 micron per coat

MEDIUM GRAINS

SUGGESTED SPREADING RATE: 0,7 –0,8 Kg/m² per coat

VISCOSITY: 55000 ± 15000 cps

SPECIFIC WEIGHT: 1,03 ± 0,05 g/ml

SOLIDS CONTENT: 61 ± 2%

DRY FILM THICKNESS: 380 – 440 micron per coat

SMALL GRAINS

SUGGESTED SPREADING RATE: 0,6- 0,7 Kg/m² per coat

VISCOSITY: 55000 ± 15000 cps

SPECIFIC WEIGHT: 1,15 ± 0,05 g/ml

SOLIDS CONTENT: 64 ± 2%

DRY FILM THICKNESS: 350 – 400 micron per coat

APPLICATION BY SPRAYGUN

To apply Bisanzio by spraygun it is suggested to use the following formula to make the neutral converter:

	%
WATER	38,550
Thickener (like NATROSOL PLUS 330 PA)	0,300
Alkalinity agent (like NaOH sol. 10%)	0,200
Softening agent (like CALGON PT sol. 10%)	0,100
Wetting agent (like PEG 400)	0,500
Dispersing agent (like IDROPON LOGIC 40)	0,500
Biocide (like BIOPOL JM 29)	0,150
PROPILENIC GLYCOL	1,500
Antifoaming agent (like mix of BYK 019+024)	0,200
Binder (like CARBOSET CA 1008)	44,000
Wax (like CERFOBOL R/75 or REP W 83)	1,800
Thickener (like BENTONE EW sol 5%)	11,000
Thickener (like ACRY SOL TT615)	0,900
Antirust agent (like MACRIRUST M90)	0,300
	100,000

Characterization:

Viscosity: 2200 ± 500 cps

Specific weight: 1,01 ± 0,05 g/ml

pH: 7-9

Solids content: 20 ± 2%

To prepare the final product, it is suggested to respect the following ratio in weight between **BISANZIO** and converter basing on grain size:

BIG GRAINS	30% BISANZIO 70% NEUTRAL CONVERTER
MEDIUM GRAINS	35% BISANZIO 65% NEUTRAL CONVERTER
SMALL GRAINS	40% BISANZIO 60% NEUTRAL CONVERTER

Being a multicolour product it is suggested to stir it before application also when it rests for a few minutes.

For a smooth final effect it is suggested to use a machine like RTX 1500 (GRACO) with a 4 mm nozzle. Air pressure must be regulated with the grain size. With one hand only it is possible to obtain a proper final effect.

By using a high viscosity protective and sealant spraygun, with 6-8 mm nozzle and pressure at 5-6 bar, the product will show the following characteristics:

- Big grain size: smooth look, like in previous application.

- Medium and small grain size: orange peel effect. With these grain sizes it is possible to obtain a precious “**damascato**” effect by gently smoothing the surface with a plastic spatula 15-20 minutes after application, that is right before the wet product becomes opaque.

DILUTION: 5-10 % with water.

DRYING TIME at $T=23\pm 2^{\circ}\text{C}$ e $RH=50\pm 5\%$: touch dry 3-4 hours; completely dry 18-24 hours.

CHEMICAL-PHYSICAL PROPERTIES

BIG GRAINS

SUGGESTED SPREADING RATE: 1,0 - 1,2 Kg/m²

VISCOSITY: 25000 ± 10000 cps

SPECIFIC WEIGHT: 0,90 ± 0,05 g/ml

SOLIDS CONTENT: 44 ± 2%

DRY FILM THICKNESS: 450 – 500 micron

MEDIUM GRAINS

SUGGESTED SPREADING RATE: 1,0 - 1,2 Kg/m²

VISCOSITY: 25000 ± 10000 cps

SPECIFIC WEIGHT: 0,96 ± 0,10 g/ml

SOLIDS CONTENT: 48 ± 2%

DRY FILM THICKNESS: 450 – 500 micron

SMALL GRAINS:

SUGGESTED SPREADING RATE: 1,0 - 1,2 Kg/m²

VISCOSITY: 25000 ± 10000 cps

SPECIFIC WEIGHT: 1,13 ± 0,10 g/ml

SOLIDS CONTENT: 52 ± 2%

DRY FILM THICKNESS: 500 – 550 micron

APPLICATION BY BRUSH

To apply the product by brush it is possible to use the same neutral converter and the same grain/converter ratio used for spray-gun application.

It is suggested to dilute and carefully stir the product before application. Best final look is obtained by applying two coats, the second one 3-4 hours after the first one. It is suggested to apply **BISANZIO** with care to have a homogenous distribution; when the product is still wet it is possible to gently smooth it with a plastic spatula to get a more homogeneous distribution.

Note: an easier distribution of the product will be achieved with the second coat, because of grains lightness and wetability of the surface.

DILUTION: 10-15 % with water.

DRYING TIME at $T=23\pm 2^{\circ}C$ e $RH=50\pm 5\%$: touch dry 3-4 hours; completely dry 18-24 hours.

CHEMICAL PHYSICAL PROPERTIES

BIG GRAINS

SUGGESTED SPREADING RATE: 1,5 – 1,6 Kg/m² for two coats

DRY FILM THICKNESS: 700 - 750 micron

MEDIUM GRAINS

SUGGESTED SPREADING RATE: 1,0 – 1,2 Kg/m² for two coats

DRY FILM THICKNESS: 500 – 600 micron

SMALL GRAINS

SUGGESTED SPREADING RATE: 0,9 – 1,1 Kg/m² for two coats

DRY FILM THICKNESS: 500 – 600 micron

It is possible to correct any defect with the product diluted at 30-40% in order not to apply a too thick overcoat.

Liability warning:

The advice and indications in these technical notes are based on our experience, but we cannot accept liability for them. Our technical service is at your disposition for any further details.