

**MISCELE 20x20 mm**

| 1 | DESCRIPTION                                                                                                                                                                                                                                                                    |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p>Glass mosaic composed of randomly arranged square tesserae of different colours. The square, bevelled, 20x20 mm tesserae are mounted on paper or mesh.</p> <p>With regard to the technical specifications (point 4), please refer to the data on individual components.</p> |

| 2   | APPLICATIONS                                                                                                                                                                                          |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A   | <p>INTERIOR WALLS</p> <p>Walls and ceilings in general, of any shape and size, for residential and public buildings</p>                                                                               |
| B   | <p>INTERIOR FLOORING</p> <p>Light traffic (private residential rooms)</p>                                                                                                                             |
| C.1 | <p>- EXTERNAL WALLS<br/>- SWIMMING POOLS<br/>- HIGH-HUMIDITY AREAS<br/>(Turkish bath, bio sauna, etc.)</p> <p>For the uses indicated, we strongly recommend mosaic tiles mounted <u>on paper</u>.</p> |

**Blends with GLOSS / GLOW**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| C.2 | <p>- EXTERIOR WALLS<br/>- SWIMMING POOLS<br/>- HIGH-HUMIDITY AREAS<br/>(Turkish bath, bio sauna, etc.)</p> <p>Gloss has good resistance to hydrolytic and alkali attacks; therefore, it is suitable for swimming pool tiling.<br/>For the uses indicated, we strongly recommend mosaic tiles mounted <u>on paper</u>.<br/><b>Not suitable for tiling thermal pools in general, especially those with sulphur waters.</b></p> |
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**Blends with ORO BIS**

|     |                                                                                                                                                                                                                                                                                                                                                                                                          |
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| C.3 | <p>- EXTERIOR WALLS<br/>- SWIMMING POOLS<br/>- HIGH-HUMIDITY AREAS<br/>(shower, Turkish bath, bio sauna, etc.)</p> <p>- Oro Bis giallo (yellow gold): suitable for the specified applications (ref. ANSI A 137.2-2012: Resistance to thermal shock)<br/>- Oro Bis bianco (white gold): we recommend replacing it with Platino mosaic, which provides a full guarantee against the risks of oxidation</p> |
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| 3                     | WEIGHTS AND MEASUREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |          |          |               |                  |            |                       |     |           |      |       |          |        |          |                 |                         |               |                   |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|----------|---------------|------------------|------------|-----------------------|-----|-----------|------|-------|----------|--------|----------|-----------------|-------------------------|---------------|-------------------|
|                       | <table> <tr> <td>Size</td><td>20x20 mm</td></tr> <tr> <td>Mounting</td><td>paper or mesh</td></tr> <tr> <td>Sheet dimensions</td><td>322x322 mm</td></tr> <tr> <td>Number of tiles/sheet</td><td>225</td></tr> <tr> <td>Thickness</td><td>4 mm</td></tr> <tr> <td>Joint</td><td>~1.57 mm</td></tr> <tr> <td>Weight</td><td>7 kg/sqm</td></tr> <tr> <td>Quantity/carton</td><td>2.07 sqm <sup>(1)</sup></td></tr> <tr> <td>Sheets/carton</td><td>20 <sup>(1)</sup></td></tr> </table> | Size | 20x20 mm | Mounting | paper or mesh | Sheet dimensions | 322x322 mm | Number of tiles/sheet | 225 | Thickness | 4 mm | Joint | ~1.57 mm | Weight | 7 kg/sqm | Quantity/carton | 2.07 sqm <sup>(1)</sup> | Sheets/carton | 20 <sup>(1)</sup> |
| Size                  | 20x20 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |          |          |               |                  |            |                       |     |           |      |       |          |        |          |                 |                         |               |                   |
| Mounting              | paper or mesh                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |          |          |               |                  |            |                       |     |           |      |       |          |        |          |                 |                         |               |                   |
| Sheet dimensions      | 322x322 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |          |          |               |                  |            |                       |     |           |      |       |          |        |          |                 |                         |               |                   |
| Number of tiles/sheet | 225                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |          |          |               |                  |            |                       |     |           |      |       |          |        |          |                 |                         |               |                   |
| Thickness             | 4 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |          |          |               |                  |            |                       |     |           |      |       |          |        |          |                 |                         |               |                   |
| Joint                 | ~1.57 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |          |          |               |                  |            |                       |     |           |      |       |          |        |          |                 |                         |               |                   |
| Weight                | 7 kg/sqm                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |          |          |               |                  |            |                       |     |           |      |       |          |        |          |                 |                         |               |                   |
| Quantity/carton       | 2.07 sqm <sup>(1)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |          |          |               |                  |            |                       |     |           |      |       |          |        |          |                 |                         |               |                   |
| Sheets/carton         | 20 <sup>(1)</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |          |          |               |                  |            |                       |     |           |      |       |          |        |          |                 |                         |               |                   |

<sup>(1)</sup> Blends with gold are supplied in cartons of 10 sheets (1.03 sqm)

| 4.a TECHNICAL CHARACTERISTICS - VETRICOLOR |                               |                                      |                                       |              |
|--------------------------------------------|-------------------------------|--------------------------------------|---------------------------------------|--------------|
| VTC<br>+<br>VTC<br>MATT                    | Description                   | Test                                 | Established limits                    | Result       |
|                                            | Water absorption              | ISO 10545 - 3                        | $E \leq 0.5\%$                        | < 0.5        |
|                                            | Resistance to thermal shock   | ISO 10545 - 9                        | 15°-145°C                             | resistant    |
|                                            | Resistance to chemical attack | ISO 10545 -13                        |                                       | resistant    |
|                                            | Frost resistance              | ISO 10545 - 12                       |                                       | resistant    |
|                                            | Colour resistance to fading   | DIN 51094                            |                                       | resistant    |
|                                            | Stain resistance              | ISO 10545 - 14                       |                                       | resistant    |
|                                            | Resistance to thermal shock   | ANSI A 137.2-2012                    | +15/+71°C                             | resistant    |
| VTC                                        | Slip resistance               | DIN 51097                            | A(12°-18°)<br>B(18°-24°)<br>C(+24°)   | A+B          |
|                                            |                               | DIN 51130                            | R9 - R13                              | R9           |
| VTC<br>MATT                                | Slip resistance               | BS 7976                              | >36 (low)                             | Wet 41-40    |
|                                            |                               | DIN 51097                            | A(12°-18°)<br>B(18°-24°)<br>C(+24°)   | A+B+C (31°)  |
|                                            |                               | D.M. 14/06/1989<br>n.236 part. 8.2.2 |                                       | compliant    |
|                                            |                               | B.C.R Rep. CEC. 6/81                 | $0.40 \leq \mu < 0.74$<br>$\geq 0.74$ | 0.59         |
|                                            |                               | DIN 51130                            | R9 - R13                              | R11          |
|                                            |                               | ENV 12633:2006                       | Class 0-3 (3 Rd $\geq$ 45)            | Class 3 (46) |

| 4.b TECHNICAL CHARACTERISTICS - LE GEMME |                               |                   |                                     |              |
|------------------------------------------|-------------------------------|-------------------|-------------------------------------|--------------|
| GM<br>+<br>GM<br>MATT                    | Description                   | Test              | Established limits                  | Result       |
|                                          | Water absorption              | ISO 10545 - 3     | $E \leq 0.5\%$                      | < 0.5        |
|                                          | Resistance to chemical attack | ISO 10545 - 13    |                                     | resistant    |
|                                          | Frost resistance              | ISO 10545 - 12    |                                     | resistant    |
|                                          | Colour resistance to fading   | DIN 51094         |                                     | resistant    |
|                                          | Resistance to thermal shock   | ANSI A 137.2-2012 | +15/+71°C                           | resistant    |
| GM                                       | Slip resistance               | DIN 51097         | A(12°-18°)<br>B(18°-24°)<br>C(+24°) | A+B          |
|                                          |                               | DIN 51130         | R9 - R13                            | R9           |
| GM<br>MATT                               | Slip resistance               | ENV 12633:2006    | Class 0-3 (3 Rd $\geq$ 45)          | Class 1 (33) |
|                                          |                               | BS 7976           | >36 (low)                           | 25-23 (wet)  |
|                                          |                               | DIN 51097         | A(12°-18°)<br>B(18°-24°)<br>C(+24°) | A+B+C        |
|                                          |                               | DIN 51130         | R9 - R13                            | R11          |

NB: the MATT version tiles in the LE GEMME collection do not have the same shiny appearance as those in the standard version.

| 4.c CARATTERISTICHE TECNICHE - GLOSS / GLOW / SMALTO PURO |                               |                   |                                     |           |
|-----------------------------------------------------------|-------------------------------|-------------------|-------------------------------------|-----------|
|                                                           | Description                   | Test              | Established limits                  | Result    |
|                                                           | Water absorption              | ISO 10545 - 3     | $E \leq 0.5\%$                      | < 0.5     |
|                                                           | Resistance to chemical attack | ISO 10545 -13     |                                     | resistant |
|                                                           | Frost resistance              | ISO 10545 - 12    |                                     | resistant |
|                                                           | Colour resistance to fading   | DIN 51094         |                                     | resistant |
|                                                           | Resistance to thermal shock   | ANSI A 137.2-2012 | +15/+71°C                           | resistant |
|                                                           | Slip resistance               | DIN 51097         | A(12°-18°)<br>B(18°-24°)<br>C(+24°) | A         |

| <b>4.d TECHNICAL CHARACTERISTICS - SMALTO</b> |                               |                   |                                     |              |
|-----------------------------------------------|-------------------------------|-------------------|-------------------------------------|--------------|
|                                               | Description                   | Test              | Established limits                  | Result       |
| SM<br>+<br>SM<br>MATT                         | Water absorption              | ISO 10545 - 3     | $< 0.5 E \leq 0.5\%$                | $< 0.5$      |
|                                               | Resistance to thermal shock   | ISO 10545 - 9     |                                     | resistant    |
|                                               | Resistance to chemical attack | ISO 10545 - 13    |                                     | resistant    |
|                                               | Frost resistance              | ISO 10545 - 12    |                                     | resistant    |
|                                               | Colour resistance to fading   | DIN 51094         |                                     | resistant    |
|                                               | Resistance to thermal shock   | ANSI A 137.2-2012 | +15/+71°C                           | resistant    |
| SM                                            | Slip resistance               | DIN 51097         | A(12°-18°)<br>B(18°-24°)<br>C(+24°) | A+B (18°)    |
|                                               |                               | DIN 51130         | R9 - R13                            | R9           |
| SM<br>MATT                                    | Slip resistance               | DIN 51097         | A(12°-18°)<br>B(18°-24°)<br>C(+24°) | A+B (21°)    |
|                                               |                               | DIN 51130         | R9 - R13                            | R10          |
|                                               |                               | ENV 12633:2006    | Class 0-3 (3 Rd≥45)                 | Class 2 (41) |
|                                               |                               | BS 7976           | >36 (low)                           | 50-53 (wet)  |

NB: the MATT version tiles in the SMALTO collection do not have the same shiny appearance as those in the standard version.

| <b>4.e CARATTERISTICHE TECNICHE - CANVAS</b> |                               |                   |                                     |           |
|----------------------------------------------|-------------------------------|-------------------|-------------------------------------|-----------|
|                                              | Description                   | Test              | Established limits                  | Result    |
| CANVAS                                       | Water absorption              | ISO 10545 - 3     | $E \leq 0.5\%$                      | 0         |
|                                              | Resistance to chemical attack | ISO 10545 - 13    |                                     | resistant |
|                                              | Frost resistance              | ISO 10545 - 12    |                                     | resistant |
|                                              | Colour resistance to fading   | DIN 51094         |                                     | resistant |
|                                              | Stain resistance              | ISO 10545 - 14    |                                     | resistant |
|                                              | Resistance to thermal shock   | ANSI A 137.2-2012 | +15/+71°C                           | resistant |
|                                              | Slip resistance               | DIN 51097         | A(12°-18°)<br>B(18°-24°)<br>C(+24°) | A         |
| CANVAS<br>MATT*                              | Resistance to chemical attack | ISO 10545 - 13    |                                     | resistant |
|                                              | Frost resistance              | ISO 10545 - 12    |                                     | resistant |
|                                              | Stain resistance              | ISO 10545 - 14    |                                     | resistant |
|                                              | Water absorption              | ISO 10545 - 3     | $E \leq 0.5\%$                      | 0         |
|                                              | Slip resistance               | DIN 51097         | A(12°-18°)<br>B(18°-24°)<br>C(+24°) | A+B       |
|                                              |                               | DIN 51130         | R9 - R13                            | R10       |

\*Not suitable for swimming pools or in areas subject to high thermal shock

| 4.f                       | CARATTERISTICHE TECNICHE - FLOW |                   |                                     |              |
|---------------------------|---------------------------------|-------------------|-------------------------------------|--------------|
| FLOW<br>+<br>FLOW<br>MATT | Description                     | Test              | Established limits                  | Result       |
|                           | Water absorption                | ISO 10545 - 3     | < 0.5%                              | < 0.5        |
|                           | Stain resistance                | ISO 10545 - 14    |                                     | resistant    |
|                           | Resistance to thermal shock     | ISO 10545 - 9     |                                     | resistant    |
|                           | Resistance to chemical attack   | ISO 10545 - 13    |                                     | resistant    |
|                           | Frost resistance                | ISO 10545 - 12    |                                     | resistant    |
|                           | Colour resistance to fading     | DIN 51094         |                                     | resistant    |
| FLOW                      | Slip resistance                 | ANSI A 137.2-2012 | +15/+71°C                           | resistant    |
|                           |                                 | DIN 51130         | R9 - R13                            | R10          |
|                           |                                 | DIN 51097         | A(12°-18°)<br>B(18°-24°)<br>C(+24°) | A            |
| FLOW<br>MATT              | Slip resistance                 | ENV 12633:2006    | Class 0-3 (Rd≥45)                   | Class 1 (22) |
|                           |                                 | DIN 51130         | R9 - R13                            | R11          |
|                           |                                 | DIN 51097         | A(12°-18°)<br>B(18°-24°)<br>C(+24°) | A+B+C        |
| FLOW<br>MATT              | Slip resistance                 | ENV 12633:2006    | Class 0-3 (Rd≥45)                   | Class 3 (52) |

| 4.g | TECHNICAL CHARACTERISTICS - ORO BIS |                   |                    |           |
|-----|-------------------------------------|-------------------|--------------------|-----------|
|     | Description                         | Test              | Established limits | Result    |
|     | Resistance to chemical attack       | ISO 10545 - 13    | -                  | Resistant |
|     | Stain resistance                    | ISO 10545 - 14    | -                  | Resistant |
|     | Resistance to thermal shock         | ANSI A 137.2-2012 | 15°-71°C           | Resistant |
|     | Wear resistance (PEI)               | ISO 10545 - 7     | Class 0 - 5        | Class 3*  |
|     | Colour resistance to fading         | DIN 51094         | -                  | Resistant |
|     | Water absorption                    | ISO 10545 - 3     | E ≤ 0.5%           | < 0.5     |
|     | Frost resistance                    | ISO 10545 - 12    |                    | Resistant |
|     | Scratch hardness                    | BS 6431 part. 13  | Class 1 - 10       | Class 5*  |

\* Floor version

| 5 | STRENGTHS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <ul style="list-style-type: none"> <li>- easy to clean surface</li> <li>- lightweight and thin, ideal for renovation projects</li> <li>- colour brightness</li> <li>- pleasant to the touch</li> <li>- reduced size makes it suitable for tiling curved surfaces               <ul style="list-style-type: none"> <li>- 20x20 mm tiles mounted on paper: convex surfaces, 30 mm radius - concave surfaces, 40 mm radius</li> <li>- 20x20 mm tiles mounted on mesh: convex surfaces, 60 mm radius - concave surfaces, 50 mm radius</li> </ul> </li> </ul> |

| 6 | INSTALLATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | <p>For proper installation, the substrate must be a perfectly smooth, even, white surface, and must be cured, dry, sound and stable.</p> <ul style="list-style-type: none"> <li>- Interior screed or plaster: we recommend Bisazza Ad Hoc+Ultra* adhesive</li> <li>- Other types of substrates: we recommend Bisazza eGlue adhesive</li> <li>- For the SHIFT version, we recommend using profiles in the corners and on wall ends</li> <li>- Regarding paper-mounted mosaic, thoroughly remove any traces of adhesive before grouting</li> <li>- When laying, use a 3.5 mm toothed trowel. N.B. Attrition tends to wear out the trowel; it is crucial to maintain the proper thickness of the teeth for the entire installation period, restoring it with the flex tool, if necessary</li> </ul> <p><b>For exterior installation, in pools or in high-humidity areas (Turkish bath, bio sauna, etc.):</b></p> <ul style="list-style-type: none"> <li>- use the Pool Installation System (Ad Hoc+Ultra adhesive and Pool eGrout epoxy grout)</li> <li>- For installation on swimming pools with salt water or thermal spring water, use epoxy products only: we recommend the Bisazza Epoxy Pool Installation System (epoxy eGlue adhesive + Pool eGrout epoxy grout) and waterproofing with epoxy membrane</li> <li>- <u>We strongly recommend mosaic tiles mounted on paper.</u></li> <li>- Blends with Gloss or Glow tiles: Not suitable for tiling thermal pools in general, and especially not those with sulphur waters</li> <li>- Blends with Oro Bis bianco (white gold) tiles: replace Oro Bis bianco with Platino tiles, to fully guarantee against risk of oxidation</li> </ul> <p>Average consumption Bisazza Ad Hoc: 1.25 kg/sqm (two coats of skimming included)<br/> Average consumption Bisazza Ultra: 0.8 kg/sqm<br/> Average consumption Bisazza eGlue: 1.6 kg/sqm (please add 0.9 Kg/sqm for the skimming)</p> <p>* except for any specific standards or codes enforced by an individual country.</p> |
| B | <p><b>Grouting</b><br/> For the best results and performance, use Bisazza Fillgel Plus.<br/> The grout colour will affect the final aesthetic appearance of the installed tile.</p> <p>Because <b>Fillgel 1104 neutro base</b> is a colourless and semi-transparent grout, it must be applied with special care. Due to its colourless nature, some yellowing occurs when exposed to sunlight (UV radiation), which becomes more noticeable with time. This is why Fillgel 1104 neutro base cannot be used for exterior applications or in outdoor pools.</p> <p>For pools and outdoor use, Bisazza recommends Pool eGrout epoxy grout.</p> <p>Average consumption Bisazza Fillgel Plus: 1.45 kg/sqm<br/> Average consumption Bisazza Pool eGrout: 1.35 kg/sqm</p> <p><b>For further information on installation procedures, consult the installation manual and product technical data sheets.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7 | MAINTENANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|   | <p>Use ordinary cleaning products (except those containing hydrofluoric acid or phosphoric acid), for maintenance and cleaning of glass mosaic surfaces, taking care to rinse thoroughly with water. Alkaline detergents should be used cautiously and quickly rinsed off with water. Cleaning products should never be used on hot surfaces or those directly exposed to sunlight. Avoid using abrasive tools and high-pressure water jets (pressure washing).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 8 | WARNINGS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|   | <p>The colour of the mosaic tiles is never perfectly uniform or even. Slight chipping in some tiles is a characteristic feature of the product. Also, please note: it is impossible to guarantee that tile colours in subsequent orders will be identical.</p> <p>Prior to installation, all materials should be stored in a dry place sheltered from rain and humidity. For information on use with fibreglass or steel swimming pools, contact Bisazza's technical office: <a href="mailto:installation.department@bisazza.com">installation.department@bisazza.com</a>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |