

**OPERA 15 - OPERA 25**

1	DESCRIPTION
	Transparent glass mosaic, consisting of 15x15mm (19/32"x19/32") and 25x25mm (63/64"x63/64") square tiles 6 mm (+/-1 mm) thick, mounted on sheets of paper.

2	APPLICATIONS	
A	INTERIOR WALLS	walls and ceilings in general, of any shape and size, for residential and public buildings
B	INTERIOR FLOORS	light traffic (residential bathroom floors)
C	<ul style="list-style-type: none"> <li>- EXTERNAL WALLS</li> <li>- SWIMMING POOLS</li> <li>- HUMID ENVIRONMENTS (shower, bio sauna, spa, etc.)</li> </ul>	<p>OPERA 15 - OPERA 15 MATT - OPERA 25 - OPERA 25 MATT suitable for these environments.</p> <p>OPERA 15 GLOSS: suitable for these environments.  <b>Not suitable for tiling pools with thermal water in general, especially those with sulphur waters.</b></p>

3	WEIGHTS AND MEASUREMENTS		
		OPERA 15	OPERA 25
	Format	15x15mm	25x25mm
	Mounting	paper	paper
	Sheet dimension	322x322mm	317x317mm
	Number of tiles/sheet	400	144
	Thickness	6 mm (+/-1 mm)	6 mm (+/-1 mm)
	Joint	~1.2 mm	~1.57 mm
	Weight	8 kg/m <sup>2</sup>	11.64 kg/m <sup>2</sup>
	Quantity/carton	1.55 sqm	1.5 sqm
	Sheets/carton	15	15

4	TECHNICAL CHARACTERISTICS			
	Description	Test	Established limits	Result
OP 25	Water absorption	ISO 10545 - 3	E ≤ 0.5	< 0.5
OP 15	Resistance to chemical attack	ISO 10545 - 13		resistant
OP 25M				
OP 15M	Frost resistance	ISO 10545 - 12		resistant
	Resistance to thermal shocks	ANSI A 137.2-2012	+15/+71°C	resistant
OP 25M	Slip resistance	DIN 51097	A(12°-18°) B(18°-24°) C(+24°)	A+B+C
OP 15M		DIN 51130	R9 - R13	R11
OP 25M	Slip resistance	BS 7976	>36 (low)	47-45 (wet)

<b>5</b>	<b>STRENGTHS</b>
	<ul style="list-style-type: none"> <li>- ease of surface cleaning</li> <li>- colour brightness</li> <li>- transparency of glass used</li> <li>- tiling of curved surfaces:                      OPERA 25: convex, 30 mm radius - concave, 50 mm radius                      OPERA 15: convex, 20 mm radius - concave, 30 mm radius</li> </ul>

<b>6</b>	<b>INSTALLATION</b>
<b>A</b>	<p>For best results, the foundation must have a perfectly smooth, even surface, and must be dry, sound and stable.</p> <ul style="list-style-type: none"> <li>- Cement, plaster foundations: recommended use of adhesive Bisazza Ad Hoc</li> <li>- For laying on other substrates: recommended use of adhesive Bisazza eGlue</li> <li>- For exteriors, submersed areas and humid areas: recommended use of adhesive Bisazza eGlue</li> <li>- Installation in swimming-pools with salty water or thermal water: recommended use of Bisazza Installation Kit (Bisazza eGlue + Fillgel Plus UVR); we recommend waterproofing with epoxy products as well.</li> <li>- Thoroughly wash traces of paper glue before grouting</li> <li>- When laying, use a spatula with 5 mm teeth</li> </ul> <p>Average consumption Bisazza Ad Hoc: 1.65 kg/sqm (OPERA 25) - 1.25 kg/sqm (OPERA 15) - (two coats of skimming included)                      Average consumption Bisazza eGlue:                      2.4 kg/sqm (OPERA 25) - 1.6 kg/sqm (OPERA 15) - add 0.9 kg/sqm for the skimming</p>
<b>B</b>	<p>Grouting:                      For the best results and performance, use Bisazza Fillgel Plus UVR.                      The grout colour will affect the final aesthetic appearance of the product installed.</p> <p>Being a colourless and semi-transparent grout, <b>Fillgel 1104 neutro base</b> needs to be used with special care. Because of its colourless feature, the yellowing due to UV rays' exposure becomes more visible with time. For this reason, Fillgel 1104 neutro base <u>cannot be used</u> outdoors and in outdoor swimming-pools.</p> <p>Average consumption Bisazza Fillgel Plus UVR: 1.6 kg/sqm (OPERA 25) – 2.3 kg/sqm (OPERA 15)</p> <p><b>For any information on the installation procedure, consult the installation book and the products technical data sheets.</b></p>

<b>7</b>	<b>MAINTENANCE</b>
	<p>Use ordinary cleaning products for maintenance and cleaning of glass mosaic surfaces (except those containing hydrofluoric acid or phosphoric acid), being careful to rinse thoroughly with water. Alkaline detergents should be used carefully and rapidly rinsed out with water. Any cleaning product should not be used on heated or directly exposed to sunrays surfaces. Avoid using abrasive tools and high pressure jets of water.</p>

<b>8</b>	<b>WARNING</b>
	<p>The colour of the mosaic tiles is never perfectly uniform or even. Slight chipping in some tiles (more or less 10%) is a characteristic feature of the product. It is also clearly pointed out that it cannot be guaranteed that colouring in subsequent orders will be identical.</p> <p>The Opera tiles, characterised by the transparency of the base glass, can only be glued on paper: they are not available on a mesh.</p> <p>Before the application, all the materials should be stored in a dry place sheltered from rain and humidity.</p> <p>For information on use with fibreglass or steel swimming pools, contact Bisazza's technical office (installation.department@bisazza.com)</p>