



# PRODUCT DATA SHEET

COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV GL  
= ISO 9001 =

**CODE**

9050

**NAME**

Tecnogrès

**DESCRIPTION**

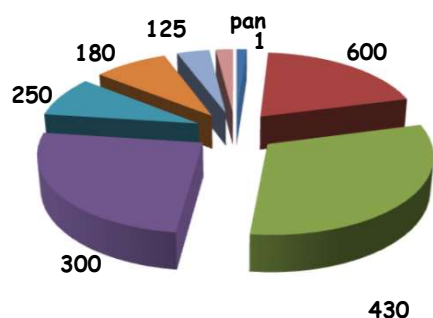
Atomized ceramic mix for glazed porcelain stoneware

## CHEMICAL ANALYSIS

SiO <sub>2</sub>	71.5%
Al <sub>2</sub> O <sub>3</sub>	16.5%
Fe <sub>2</sub> O <sub>3</sub>	0.8%
TiO <sub>2</sub>	0.5%
CaO	0.7%
MgO	0.5%
Na <sub>2</sub> O	3.1%
K <sub>2</sub> O	3.1%
l.o.i.	3.0%

## PARTICLE SIZE DISTRIBUTION

sieve opening	residual
1 mm	1.2%
600 µm	19.8%
430 µm	31.0%
300 µm	25.2%
250 µm	8.6%
180 µm	8.6%
125 µm	3.8%
pan	2.0%



## PROPERTIES BEFORE FIRING

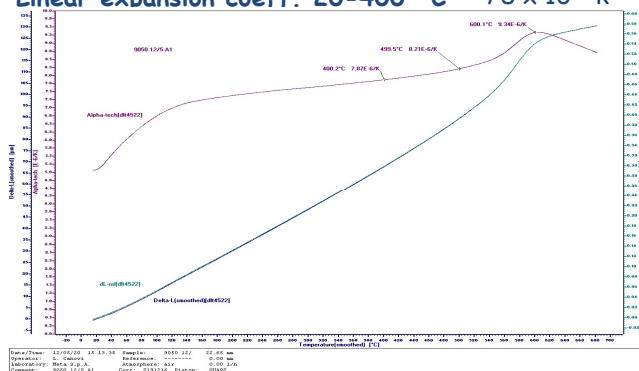
Forming pressure	400 Kg/cm <sup>2</sup>	Modulus of rupture of green body	9 Kg/cm <sup>2</sup>
Linear expansion after pressing	0.24%	Modulus of rupture of dried body	33 Kg/cm <sup>2</sup>
Moisture of atomised	5.9%	Specific surface M.B.I.	45 m <sup>2</sup> /g

## PROPERTIES AFTER FIRING

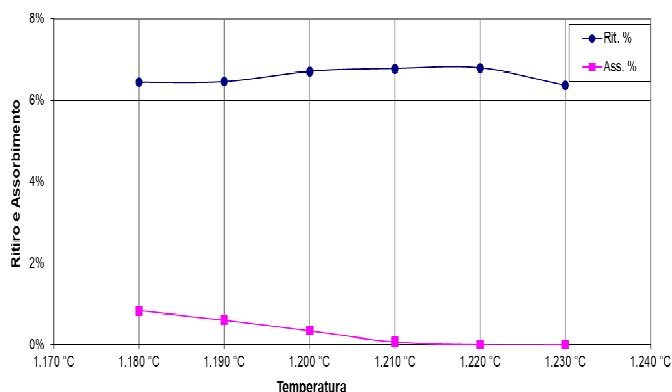
Firing cycle <sup>1</sup>	52 min.	Modulus of rupture of fired body	630 Kg/cm <sup>2</sup>
Firing temperature	1220 °C	<b>Valori colorimetrici<sup>4</sup></b>	
Thermal work of kiln <sup>2</sup>	1117 °C	L* (white)	65
Linear shrinkage	6.6%	a* (red-green)	2
Water absorption	0.09%	b* (yellow-blue)	10
Loss on ignition	3.0%	Fired colour approx.	Beige
Moisture expansion <sup>3</sup>	n.d.		

## DILATOMETRIC ANALYSIS ON FIRED BODY<sup>5</sup>

Linear expansion coeff. 20-400° C  $78 \times 10^{-7} \text{ } ^\circ\text{K}^{-1}$



## GREIFICATION DIAGRAM



### Notes:

- Samples are fired in laboratory kiln of 3,6 m.
- Measured with BULLER ring fired on a refractory tile of 25x30 cm.
- Measured after 2 hours in boiling water and 24 hours of chilling submersed.
- Illuminant/Observer = D65/10°. ColorQUEST Sphere: Stdz Mode: RSIN.
- 10°C/min gradient.

The data mentioned are average values obtained from production and laboratory controls

September 2020