NEO PLUS® Cork Stoppers





NEO® cork stoppers are technical cork stoppers, produced using granules sterilised by one of M.A.SILVA's most innovative and revolutionary technologies - NEOTECH®.

This technology allows improving the performance and properties of cork's natural characteristics, in addition to guaranteeing the elimination of TCA. M.A.SILVA's portfolio has different cork stoppers subjected to this technology, with different technical specifications.

TECHNOLOGIES



DYNAVOX®Raw material sterilization and vaporization



NEOTECH®Sterilisation and vaporisation of granules



MASZONE®
Elimination
of microorganisms



The mark of responsible forestry

Products are available as FSC® certified on request We can supply FSC® certified products (FSC - C009204) upon request.

SUSTAINABILITY

ALL FOR THE ENVIRONMENT

Our actions are proven through the quality of our cork stoppers, the partnerships we build, the figures we present and our contribution to an increasingly greener world.



NEGATIVE CARBON FOOTPRINT

Study carried out by KPMG according to the Group's strategic sustainability axis.







TECHNICAL SPECIFICATIONS

PHYSICAL-MECHANICAL

Lenght Diameter Dimensional Recovery Moisture Specific weight Boiling water resistence Sealing capacity Chamfer

STANDARD DIMENSIONS

Granules size

X + 0.5 mmX + 0.3 mm> 96% 3% < HR < 7% +/- 40 kg/m3 No disintegration No leaks at 2 bar (at 20°C) 2,5 mm 0,5 mm -2 mm

PHYSICAL-CHEMICAL

Stopper Extraction Forces OIR - OTR $^{(1)}$

OIR 6 months - 1.44 mg OTR 12 months - 1,62 mg OTR Per year, after 12 months - 0,10 mg

15daN<Fe<45daN

OIR - Oxygen Initial Release OTR - Oxygen Transfer Rate. Results obtained by chemiluminescence with CETIE bottles.

< 0,5 ng/L</p>
 Quantification limit of 0,5 ng/L Analysis performed in accordance to ISO 20752.

PRODUCTION

Moulding **Process** Branding Ink, Laser and Fire

STORAGE

TCA (2)

Use no later than (3)

⁽³⁾ As a good practice, the product should be used according to the FIFO methodology and as soon as possible, keeping the bags closed.

40% - 70% RH Moisture in storage

15°C-20°C | 59°F-68°F Storage temperature Storage place

Store the stoppers in a clean, well-ventilated and odor-free place, away from products

containing chlorine.

PRODUCTION FLOW

Raw Material

CORK OAK STRIPPING

GC/MS TCA [Cork planks are stripped from cork oak trees]

YARD **STABILIZATION**

[Planks are stored from 6 to 9 months on a concrete floor]

38x24 mm | 44x24 mm | 47x24mm

BOILING DYNAVOX® SYSTEM

[Planks are sterilized and disinfected through a vaporized pressure system.

GC/MS TCA

STABILIZATION

[Stabilization period after vaporization]

CORK PLANKS SORTING FOR **PRODUCTION**

[First sorting of planks for production]

Production

Cork granule

GRINDING production process

STERILIZATION NEOTECH® SYSTEM Cork granules are vaporized

GC/MS TCA CONTROL

AGLOMERATION Production of micro agalomerated bodies

GC/MS TCA CONTROL

ELECTRONIC GRADING ----2D AND 3D Electronic sorting

DRYING Final moisture definition

and sterilized

GC/MS TCA CONTROL

WASHING MASZONE® SYSTEM Washing and sterilization DUSTING DOWN

CORRECTION OF SIZES

Precise correction of corks sizes

Customization and Packaging

PRINTING

Customized printing on stoppers

FINAL TREATMENT To facilitate the bottling process GC/MS TCA CONTROL

PACKAGING

According to specifications