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

Granules size

 $X \pm 0.5 \, mm$ X + 0.3 mm> 90% 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)

15daN<Fe<45daN OIR 6 months - 1.44 mg OTR 12 months - 1,62 mg

OTR Per year, after 12 months - 0,10 mg 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. TCA (2)

PRODUCTION

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

STORAGE

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]

STANDARD DIMENSIONS

YARD **STABILIZATION**

38x24 mm | 44x24 mm | 47x24mm

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

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

GRINDING Cork granule production process

STERILIZATION NEOTECH® SYSTEM Cork granules are vaporized

and sterilized

GC/MS TCA CONTROL

AGLOMERATION Production of micro agalomerated bodies GC/MS TCA CONTROL

ELECTRONIC GRADING ----

DRYING 2D AND 3D Final moisture Electronic sorting definition

GC/MS TCA CONTROL

WASHING MASZONE® SYSTEM Washing and sterilization DUSTING DOWN

CORRECTION OF SIZES

Precise correction of corks sizes

Customization and Packaging

PRINTING

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

PACKAGING According to specifications

Customized printing on stoppers

Naturally **Better**