



TECHNICAL SPECIFICATIONS		INTERNAL METHOD
GRANULATE (MM)	0,5-2	GP05-I38
LENGTH (MM)	NOMINAL ± 0,5	GP05-I17
DIAMETER (MM)	NOMINAL ± 0,4	GP05-I17
OVALISATION (MM)	≤ 0,4	GP05-I17
MOISTURE (%)	6 ± 2	GP05-I36
AGLOMERATE DENSITY (KG/M <sup>3</sup> )	310 ± 40	GP05-I67
OXIDANTS (MG/CORK)	≤ 0,2	GP05-I44
CORK DUST (MG/CORK)	≤ 1,0	GP05-I23
MICROBIOLOGY (CFU/CORK)	≤ 5	GP05-I25
CAPILARITY (MM)	< 1	GP05-I24
EXTRACTION FORCE (dAN)	27,5 ± 12,5	GP05-I22
OXYGEN PERMEABILITY COEFFICIENT (AVERAGE (MOL/M.S.PA)	1,05 x 10 <sup>-14</sup>	NOT CODIFIED

THE GRANULATES USED FOR AGLICA ARE PRODUCED THROUGH A HIGHLY CONTROLLED AND VALIDATED PROCESS BASED ON A STRICT SELECTION OF ALL RAW MATERIALS. THE INTRODUCTION OF NEW TECHNOLOGIES DEVELOPED BY ÁLVARO COELHO & IRMÃOS S.A. HAS ADDED A RECOGNIZED VALUE TO THIS PRODUCT:

- ✓ THE NBS IS AN INNOVATIVE AND TOTALLY AUTOMATIC PROCESS THAT ACCENTUATES THE EXTRACTION OF VOLATILE COMPOUNDS FROM THE CORK PLANKS;
- ✓ THE DRASRED IS A PROCESS AIMED AT DEODORIZING CORK STOPPERS, ENSURING THE REMOVAL OF VOLATILE COMPOUNDS;
- ✓ THE LPAG IS A WASHING PROCESS THAT ENSURES A MICROBIOLOGICAL DISINFECTION OF THE PRODUCT;
- ✓ THE APPLICATION OF ÁLVARO COELHO & IRMÃOS S.A. SURFACE TREATMENTS IS ACCESSED INDIVIDUALLY, AIMING AT THE TYPE OF LIQUID, BOTTLE AND SEALING THE CUSTOMER IS LOOKING FOR. THIS IS THE FINAL STEP TO ACHIEVE OUR GREAT OBJECTIVE: THE TOTAL SATISFACTION OF OUR CUSTOMERS.

ALL THESE TECHNOLOGIES ARE THE RESULT OF MORE THAN 5 YEARS WORK FROM OUR R&D DEPARTMENT – RESEARCH AND DEVELOPMENT – IN COOPERATION WITH SEVERAL UNIVERSITIES AND INTERNATIONALLY RECOGNIZED ORGANIZATIONS.

### RECOMMENDED USE

CORK STOPPERS ARE DESTINED TO SEAL CONTAINERS, NORMALLY GLASS BOTTLES CONTAINING LIQUIDS WITH A VARIABLE ALCOHOLIC CONTENT. THE STOPPER MAY CONTACT WITH THE LIQUID.

THE CORKS SUPPLIED BY ÁLVARO COELHO & IRMÃOS S.A. ARE READY FOR IMMEDIATE USE AFTER OPENING THE BAG. ANY FURTHER TREATMENT IS INAPPROPRIATE.

ALL MATERIALS AND PROCESSES USED IN THE MANUFACTURING OF AGLICA CORK STOPPERS FOLLOW THE EUROPEAN UNION LEGISLATION AND THE APPLICABLE FDA STANDARD NORMS FOR MATERIALS INTENDED TO CONTACT WITH FOOD PRODUCTS.

### STORAGE AND USAGE SUGESTIONS

- ALWAYS KEEP THE PRODUCT IN ITS ORIGINAL CONTAINER IN A VENTILATED AND ODOR FREE AREA;
- STORAGE TEMPERATURE SHOULD BE BETWEEN 15 AND 20°C AND MOISTURE BETWEEN 50 AND 70%;
- ALL LOTS MUST BE USED WITHIN 6 TO 9 MONTHS OF THE PRODUCTION DATE STATED IN THE PACKAGE;
- THE TOTALITY OF THE CORKS IN A BAG MUST BE USED IMMEDIATELY AFTER OPENING;
- MOISTURE INSIDE BOTTLE NECKS SHOULD BE AVOIDED DURING CORKING;
- CORK INSERTION SHOULD BE FAST AND COMPRESSION SLOW, LEAVING A SPACE OF ≥ 15MM BETWEEN THE CORK AND THE LIQUID (FOR WINES WITH NO INTERNAL PRESSURE);
- BOTTLES MUST BE STORED VERTICALLY FOR 5 TO 10 MINUTES AFTER BOTTLING.

### CHOOSING THE RIGHT STOPPER

TODAY, MORE THAN EVER, THE SELECTION OF A STOPPER IS ESPECIALLY IMPORTANT. TO SELECT THE BEST STOPPER, THERE ARE A NUMBER OF FACTORS TO CONSIDER SUCH AS THE BOTTLE, HEADSPACE AND TYPE OF WINE AND STORAGE TIME.

ÁLVARO COELHO & IRMÃOS S.A. CAN PROVIDE A RANGE OF PRODUCTS THAT CAN MEET THE NEEDS OF EACH AND EVERY TYPE OF LIQUIDS BEARING IN MIND ALL THE FACTORS INVOLVED (INCLUDING THE REDUCTIVE POTENTIAL FOR WINES).

# AGLICA 1NG<sup>(1)</sup>

# aglica 1ng



1. EVERY PRODUCTION BATCH OF AGLICA 1NG IS SYSTEMATICALLY CONTROLLED<sup>(2)</sup> FOR A RELEASABLE TCA RATE PER CLOSURE < 1NG/L;
2. PRODUCED WITH STATE OF THE ART EXTRUSION PROCESS WHICH GUARANTEES HIGHER DENSITY AND LOWER OXYGEN CONTENT AND TRANSFER RATES;
3. CONSISTENT AND CONTROLLED PERMEABILITY;
4. PERFECT INSERTION AT BOTTLING;
5. FULLY RECYCLABLE NATURAL BASED PRODUCT;
6. SUPPORTS CORK GROVES THAT FIXATE 4.8 MILLION TONS OF CO2 EVERY YEAR.

## TECHNICAL SPECIFICATIONS<sup>(A)</sup>

METHOD	PARAMETERS	SPECIFICATIONS
SOAK TEST IN 12% HYDRO-ALCOHOLIC SOLUTION (ISO 20752:2007)	RELEASABLE 2,3,6 – TCA (N/L)	< 1NG/L
	RELEASABLE 2,3,4,6, – TeCA (N/L)	< 1NG/L
	RELEASABLE PCA (N/L)	< 1NG/L
	RELEASABLE 2,4,6 –TBA (N/L)	< 2NG/L

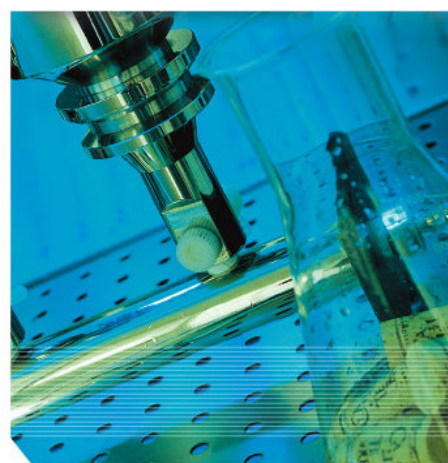
<sup>(A)</sup> THE ABOVE SPECIFICATION ASSUMES COMPLIANCE WITH MANUFACTURER'S BOTTLING AND STORAGE GUIDELINES.

TCA EXTRACTION IS PERFORMED WITH DRY STEAM EXTRACTION PROCESS – DRASRED – WHICH ACHIEVES CONSISTENT LEVELS BELOW 1NG/L<sup>(2)</sup> ON NATURAL CORK MICRO GRANULATES.

BUT AS WE BELIEVE THERE IS NO “SILVER BULLET” FOR CORK QUALITY, ALL PROCESSES INVOLVED IN THE PRODUCTION OF THIS AND ALL OTHER PRODUCTS THAT WE PROUDLY PRODUCE FROM THE TREE TO THE CUSTOMER, WERE CAREFULLY RESEARCHED, TESTED AND ONLY THEN APPLIED IN AN ISO 9001, ISO 14000 AND ISO 22000 CERTIFIED COMPANY – ÁLVARO COELHO & IRMÃOS S.A.

THE DRASRED SYSTEM IS ENVIRONMENTALLY FRIENDLY AS IT IS POWERED BY STEAM CREATED IN A STATE OF THE ART GENERATOR USING RECYCLED CORK DUST AS FUEL. THIS STEAM IS ALSO USED FOR THE NBS BOILING SYSTEM AND ALSO FOR THE DRY STEAM EXTRACTION PROCESS USED ON ALL OTHER PRODUCTS SUPPLIED BY ÁLVARO COELHO & IRMÃOS S.A.

THIS PROCESS REDUCES EVEN FURTHER THE ALREADY MINUTE CARBON FOOTPRINT OF OUR INDUSTRY... AND WE ARE DOING MORE EVERY DAY TO GO EVEN LOWER.



- (1) RELEASABLE TCA CONTENT BELOW 1NG/L<sup>(2)</sup>. DETECTION LEVELS RANGING BETWEEN 1.4 TO 4 NG/L DEPENDING ON WINE TYPE AND TASTER EXPERIENCE<sup>(3)</sup>;
- (2) INDICATIVE VALUE ACCORDING TO INTERNAL TESTING PERFORMED IN COMPLIANCE WITH ISO 20752:2007 METHOD;
- (3) ACCORDING TO DATA PUBLISHED BY THE AUSTRALIAN WINE RESEARCH INSTITUTE.



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