

NEO-GRID™/ISO-GRID™

For 48 Hour Enumeration of Yeast and Molds in Foods



Intended Use

Using YM-11 Agar, the ISO-GRID/NEO-GRID Membrane Filter Systems provide a method for the enumeration of yeast and molds in foods in only 48 hours.

The Test

The ISO-GRID/NEO-GRID systems are based on the principle of hydrophobic grid membrane filtration (HGMF). Yeast and molds are enumerated through the use of a unique membrane filter containing a grid of 1,600 squares. First, a diluted sample is prefiltered to eliminate any food particles present. The sample is then filtered through a hydrophobic grid membrane filter, and the membrane is placed on YM-11 Agar. YM-11 Agar is specifically formulated to enhance the growth of yeast and molds.

After incubation, the membrane filter is examined for colonies. On YM-11 Agar, yeast colonies appear blue and molds appear blue-grey. If no blue or blue-grey colonies are present, the test for yeast and mold is complete. Results are reported as less than 10 yeast and mold per gram. If positive colonies are present, the number of positive squares (those containing one or more colonies) are counted. The number of positive squares is converted to the corresponding most probable number (MPN) using one of the methods described in the Methods Manual, and the yeast and mold MPN per gram is calculated.

Test Procedure

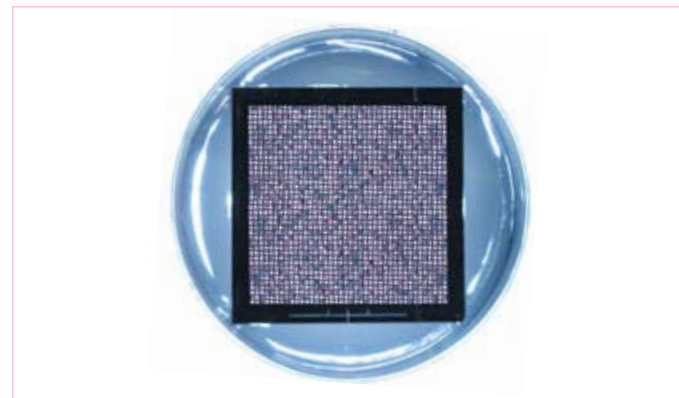
1. Prepare a sample homogenate.
2. Filter 1 mL of the homogenate through the prefilter and ISO-GRID or NEO-GRID hydrophobic grid membrane filter.
3. Place the membrane filter on the surface of a predried YM-11 Agar plate.
4. Incubate inverted plate for 48–52 hours at 25°C ± 1°.

Refer to the Methods Manual for complete instructions, and other available test methods

Product Specifications

Approvals: AOAC Official Method #995.21

Results



YM-11 Agar

Soytone	20 g/L
Tryptone	20 g/L
Dextrose	5 g/L
Sodium Chloride	5 g/L
K ₂ HPO ₄	2.4 g/L
Trypan Blue	0.03 g/L
Chloramphenicol	0.1 g/L
Agar	15 g/L
Final pH: 7.0 ± 0.2	

Presterilized Antibiotic Supplement

Chlortetracycline-HCl, sterilized	0.5 g
Sterile water, distilled or deionized	100 mL

Ordering Information

Prod.#	Product description
For use with either the NEO-GRID or ISO-GRID Test System	
6904A	YM-11 Agar (500 g)
6912E	Chlortetracycline-HCl
6810	1-Place Filtration Manifold
6800	3-Place Filtration Manifold
6801	6-Place Filtration Manifold
6821	Rubber Tubing (10 feet)
6822	Side-Arm Flask Assembly (1 L)
6824	Vacuum Pump - ¼ hp (Gast)
6828	Forceps
For use with the NEO-GRID Test System only	
6848	NEO-GRID Test System - Contains 48 individually packaged membrane filtration systems
6825	NEO-GRID Silicone Stopper
6826	Filter Tips (box of 100)
6827	Filter Bags - 24 oz Whirl-Pak (box of 250)
6829	1.0 mL Sterile Serological Pipettes (bag of 50)
For use with the ISO-GRID Test System only	
Please see page 108 for the required ISO-GRID equipment and accessories.	