



LM Agarose

Low Melting (LM) Agaroses are derivatized by organic synthesis which generates methoxylate groups from the basic agarose structure. The main properties of these agaroses are their low melting and gelling temperatures when compared with standard agaroses.

The low melting temperature allows for the recovery of undamaged nucleic acids at temperature lower than its denaturing temperature. The low gelling temperature assures the agarose will be in a liquid state at a temperature range where In-Gel manipulations can be performed without prior extraction of the DNA from the gel slice.

Features:

- Lower gel strength than standard agaroses. Even so, gels can be handled easily.
- Higher clarity (gel transparency) than gels of standard agaroses.
- Great sieving capacity.

LM Agaroses are classified in three categories, depending on the degree of derivatization. Gelling / melting temperatures and gel strength are the most important differences.

Applications:

LM (Low Melt):

- with the highest gelling/melting temperatures and gel strength.
- Electrophoresis of DNA fragments ≥ 1000 bp.
- Tissue and cell culture.
- Viral plaque assays.

S.LM (Super Low Melt):

- with lower gelling/melting temperatures and lower gel strength than LM.
- Capillary electrophoresis.
- Tissue and cell culture.
- Viral plaque assays.

E.LM (Extra Low Melt):

- with lower gelling / melting temperatures and lower gel strength than S.LM.
- Capillary electrophoresis.
- Tissue and cell culture.
- Viral plaque assays.

Specifications and Functional Tests:

	LM	S.LM	E.LM
Moisture	$\leq 7\%$	$\leq 7\%$	$\leq 7\%$
Ash	$\leq 0.4\%$	$\leq 0.35\%$	$\leq 0.35\%$
EEO	≤ 0.12	≤ 0.12	≤ 0.10
Sulfate	$\leq 0.12\%$	$\leq 0.14\%$	$\leq 0.10\%$
Clarity (NTU)	≤ 4	≤ 4	≤ 4
Gel Strength 1.5% (g/cm ²)	≥ 500	(2%) ≥ 400	≥ 300
Gelling Temperature 1.5% (°C)	24-28	(1%) 8-16	≤ 13
Melting Temperature 1.5% (°C)	≤ 65.5	(1%) ≤ 63	≤ 60
DNase/RNase activity	None detected	None detected	None detected
DNA resolution ≥ 1000 bp	Finely resolved	-	-
Gel background	Very low	-	-