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## **D-1 AGAROSE (The distinctive grade):**

D-1 Agarose is available in 5 types: Low EEO, Medium EEO, High EEO, Special High EEO and Low EEO Quick Soluble, for different uses.

### FEATURES:

- Extraordinary mechanical resistance for more reliable and easier handling
- Possibility of varying pore size in accordance with particle size by modifying the gel concentration
- Easy preparation of the gel by simple dilution in aqueous buffers either by standard boiling or by microwaving
- Greater thermal stability due to high hysteresis (= difference between gelling and melting temperatures)
- Excellent transparency of the gel and high visibility
- Exceptionally low absorption of staining agents

### APPLICATIONS:

D-1 LE: with Low EEO. High electrophoresis mobility

- Nucleic acid analytical and preparative electrophoresis.
- Blotting and Protein electrophoresis such as radial immunodiffusion

D-1 ME: with intermediate EEO

- Nucleic acids electrophoresis and Protein electrophoresis (serum protein and immunoelectrophoresis)

D-1 HE: with high EEO

- Serum protein, immunoelectrophoresis and counter-immunoelectrophoresis

D-1 SHE: with very high EEO

- For techniques that require high EEO
- To blend with lower EEO Agarose in order to prepare an Agarose with desired EEO value

D-1 QS (Quickly Soluble):

Based on the same superior performance, the additional characteristic of this particular type of agarose is the special particle size distribution, providing an easier and faster dissolution step for the final user.

### SPECIFICATIONS:

Type	D-1 LE	D-1 LE/QS	D-1 ME	D-1 HE	D-1 SHE
Moisture	≤ 7 %	≤ 7 %	≤ 7 %	≤ 7 %	≤ 7 %
Ash	≤ 4%	->	≤ 0.5 %	≤ 1.0 %	≤ 1.5 %
EEO*	0.05-0.13	->	0.16-0.19	0.23-0.26	≥ 0.3
Sulphate	≤ 0.1%	->	≤ 0.14%	≤ 0.2%	≤ 0.2%
Clarity 1.5 % (NTU)	≤ 3	->	≤ 4	≤ 4	≤ 4
Gel Strength 1% (g/cm2)	≥ 1200	->	≥ 1000	≥ 750	≥ 700
Gel Strength 1.5 % (g/cm2)	≥ 2500	->	≥ 2200	≥ 1200	≥ 1100
Gelling Temperature 1.5 % (°C)	36 ± 1.5	->	->	->	->
Melting Temperature 1.5 % (°C)	88 ± 1.5	->	->	->	->
DNase/RNase activity	None detected	->	->	->	->
DNA resolution ≥ 1000 bp	Finely resolved	->	->	->	->
Gel background	Very low	->	->	->	->
Part Number 250g	M59706768	M44116502	M30436888	M37533043	M83405480
Price for 250g	€95,-	€95,-	€95,-	€95,-	€95,-
Part Number 500g	M17324098	M16961137	M40905192	M58755466	M13107623
Price for 500g	€165,-	€165,-	€165,-	€165,-	€165,-

\* Electroendosmosis



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## BASIC AGAROSE (The routine grade)

Basic Agarose provides high performance and good resolution in routine and general applications such as analytical separations of fragments ranging from 500 bp to 20 kb, quick check of PCR products, plasmid preps and screening. Their characteristics meet all requirements for most electrophoresis applications.

Basic Agaroses feature easy gel preparation, high resolution and extraordinary transparency with very low gel background which allows visibility of the bands to appear clear and sharp. Two different types can be distinguished:

### TYPE B1:

recommended for all applications that require a high quality agarose with an excellent resolution capacity, high gel strength, low EEO and low background when stained. Its absence of DNAse/RNAse makes this agarose an essential tool in analytical and preparative electrophoresis and blotting techniques.

### TYPE B2:

compatible with all the electrophoretic techniques that do not require a very high quality agarose. It is recommended for analytical electrophoresis gels when a high resolution capacity is not needed, such as plasmid preps, screening or cloning. Ideally suitable for educational and training purposes!

### SPECIFICATIONS:

Type	B1-Type	B-2 Type
Moisture	< 10 %	< 10%
Ash	< 0.7%	< 1.0 %
Gel strength	> 1500 g/cm <sup>2</sup> (1.5%)	> 1500 g/cm <sup>2</sup> (1.5%)
Sulphate	≤ 0.1%	->
Clarity	< 3 NTU	< 5 NTU
Melting point	88 ± 1.5 °C	->
Gelling point	36 ± 1.5 °C	->
Sulfate	< 0.20 %	< 0.25 %
EEO	< 0.15	< 0.19
Part Number 250g	M38902992	M65633990
Price for 250g (€)	€65,-	€49,-
Part Number 500g	M59474457	M57886425
Price for 500g (€)	€119,-	€89,-

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## LoMelt AGAROSE (The energy saver)

Low Melting (LoMelt) Agaroses are derivatized by a chemical process 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 below the denaturation temperature. The low gelling temperature ensures that 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
- Greater sieving capacity

LM Agaroses are classified in three categories: degree of derivatization, gelling and/or 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  $\geq 1000$  bp
- Tissue and cell culture
- Viral plaque assays

#### SLM (Super Low Melt):

- with lower gelling/melting temperatures and lower gel strength than LM
- For routine capillary electrophoresis, Tissue and cell culture and Viral plaque assays

#### ELM (Extra Low Melt):

- even lower gelling/melting temperatures and lower gel strength than SLM
- For demanding capillary electrophoresis, Tissue and cell culture and Viral plaque assays

### SPECIFICATIONS:

Type	LM	SLM	ELM
Moisture	$\leq 7\%$	$\leq 7\%$	$\leq 7\%$
Ash	$\leq 0.4\%$	$\leq 0.35\%$	$\leq 0.35\%$
EEO*	$\leq 0.12$	$\leq 0.12$	$\leq 0.10$
Sulphate	$\leq 0.12\%$	$\leq 0.14\%$	$\leq 0.10\%$
Clarity 1.5% (NTU)	$\leq 4$	$\leq 4$	$\leq 4$
Gel Strength 1.5% (g/cm <sup>2</sup> )	$\geq 500$	$\geq 300$	$\geq 200$
Gelling Temperature 1.5% (°C)	24-28	$\leq 20$	$\leq 13$
Melting Temperature 1.5% (°C)	$\leq 65.5$	$\leq 62$	$\leq 60$
DNase/RNase activity	Not det.	Not det.	Not det.
DNA resolution	$\geq 1000$ bp	Finely resolved	->
Gel background	Very low	->	->
Part Number Bulk	72563188	19644482	74378244
Part Number 250g	M61761877	M73925393	M46984155
Price for 250g	€375,-	€375,-	€375,-
Part Number 500g	M78327728	M36483665	M58870383
Price for 500g	€695,-	€695,-	€695,-

\*Electroendoosmosis

## MoSes AGAROSE (not the biblical type)

An agarose for molecular screening that improves resolution of small DNA fragments and PCR products. The key to producing the MoSes (Molecular Screening grade) agaroses is harvesting the appropriate seaweed at the right time during its growth cycle. There are also certain modifications in the chemical structure of the polymer during the manufacturing process. MoSes is specially designed and produced for applications that require efficient separation of small DNA fragments and PCR products.

### FEATURES:

- High resolution of short PCR products and DNA fragments
- Improved clarity of the gel, enhancing visibility
- Better handling than competitive products because of a stronger gel structure and higher gel strength. The chances of gels breaking or cracking when handled are greatly minimized, even with lower concentrations of agarose.
- High gel strength allows use in blotting

### FUNCTIONAL TESTS:

- Resolution: bands appear sharp and finely resolved
- DNase/RNase activity: none detected
- Gel background: very low after EtBr staining
- DNA binding: very low

### SPECIFICATIONS:

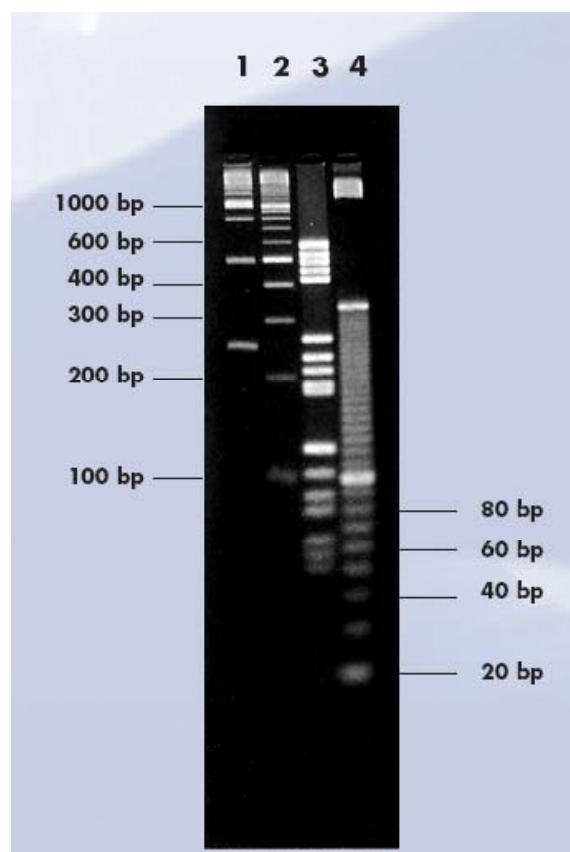
Gel concentration	1.5 % gel	3 % gel
Moisture	< 7 %	< 7%
Ash	< 0.35 %	< 0.35 %
EEO*	< 0.12 %	< 0.12%
Sulphate	≤ 0.12%	->
Clarity	< 5 NTU	
Gel strength	≥600	≥ 1500
Gelling temperature	≤ 35.5 °C	≤ 35.5 °C
Melting Temperature (°C)		≤ 80
Part Number Bulk	53283099	
Part Number 250g	M81112117	
Price for 250g	€329,-	
Part Number 500g	M54715657	
Price for 500g	€595,-	

\* Electroendoosmosis

Ranges of separation:

- 1.8% 400 – 1200 bp
- 3.0% 150 – 800 bp
- 4.5% 15 – 400 bp

These ranges are approximate and have been calculated in 1X TAE buffer.



MoSes Agarose gel, 3% concentration in 1X TAE buffer.  
Markers: lane 1- 250 bp ladder.  
lane 2-100 bp ladder.  
lane 3-Molecular weight marker V (Roche).  
lane 4-10 bp ladder.

Electrophoresis conditions:  
submarine gel, 2 hours, 4.5 V/cm in 1X TAE buffer

**To achieve the best resolution with MoSes agarose gels, they should be stored at 4° - 8° C for 30 min before use.**