

General information coated slides



Nexterion® coatings

SCHOTT offers a wide range of functional coating chemistries for DNA and protein microarraying.

Nexterion® coated slides are available with a standard functional coating, or also with an additional reflective dielectric layer (Nexterion® HiSens slides). These innovative, next generation microarray slides were developed to identify low expressor genes, or low-abundant proteins by offering a significant increase in sensitivity over traditional transparent glass slides. The functional coating and protocol are the same as for standard slides (see “Reflective optical coating” section).

The following table indicates the most appropriate slide coating for specific microarray applications (Nexterion® MTP 96-well, MPX 16-well or optically coated HiSens version of the recommended Nexterion® coating are also available):

Probe type	Functional coating	Nexterion® coating	Comments
Oligonucleotides	Epoxy silane	E	First choice for all types of oligonucleotide arrays
	Aminosilane	AStar/A+	Popular option for oligonucleotide arrays
	3-D thin film	H or P	Suitable for short amino-modified oligos (≤ 25 mers)
cDNA/PCR	Aminosilane	AStar/A+	
	Epoxy silane	E	
	Aldehydesilane	AL	Alternative for amino-modified cDNA/PCR probes
Bacterial artificial chromosomes (BAC)	3-D thin film	P	Use with amino-modified BACs
	Aminosilane	AStar/A+	
	Epoxy silane	E	
	Aldehydesilane	AL	Use with amino-modified BACs
Peptides	3-D thin film	P	Compatible with DMSO print buffer
	Epoxy silane	E	
	Aldehydesilane	AL	Alternative for robust peptide probes
	Nitrocellulose	NC	
Antibodies, Proteins	Nitrocellulose	NC	Optimal preservation of protein structure functionality
	3-D thin film	H or P	Can be used with HiSens coatings
Cells/Tissues	3-D thin film	H or P	Optimal environment for cells and tissues
Cell lysates	Nitrocellulose	NC	High loading capacity

Barcoding

Nexterion® coated slides are available with or without a barcode. The types of barcodes available are either a label barcode or a special laser bonded foil barcode.

The barcodes are fully compatible with commercial automated hybridization stations, and are robust enough to withstand standard hybridization and washing procedures.

The barcodes conform to code 128, and are readable with all commonly available microarray scanners and hand-held barcode readers.



Packaging

Nexterion® coated slides are packed in convenient 25 or 30-slide containers for high throughput applications. The boxes are made of a specially developed plastic material to minimize out-gassing, and maintain the slide coating properties. The slide boxes are sealed in tough protective laminated foil pouches under an inert atmosphere.

The specially developed packaging protects the slides from damage due to breakage and external contamination. It also offers protection from the adverse effects of light and humidity during transportation and long-term storage.



25-slide box



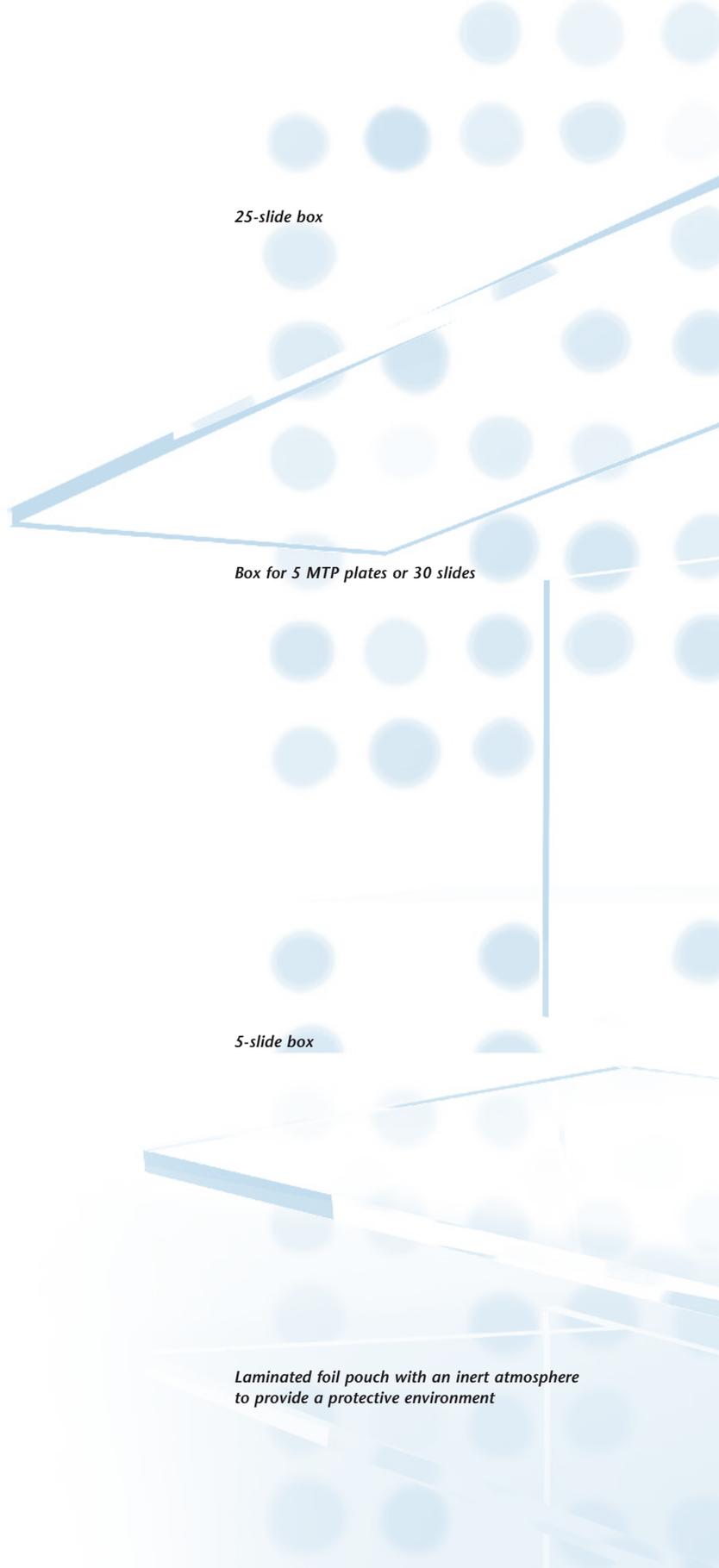
Box for 5 MTP plates or 30 slides



5-slide box



Laminated foil pouch with an inert atmosphere to provide a protective environment



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