

<b>Film</b>	
Material	plasticised PVC (Phthalate-free)
Thickness	150 µm ( ± 10%) (DIN 53370 48h after separation)
Density	1,229 g/m³ ( ± 5%)
Colour/Surface	translucent and opaque colours (see colour chart or brochure)
Surface Tension	35mN/m ( ± 2 mN/m)
Optical Transparency	waterclear, flow-lines, fisheyes, slightly mat
Shrinkage	± 2mm over 1.000 mm ( ± 0,3%)
Adhesion	0,06N/25mm (FTM 1) on clean glass
Application Temperature	min. + 5 °C
Service Temperature Range	-20 °C bis +70 °C
Expected Life Time	indoors 5 years; outdoors 2 years (Central Europe)
<b>Liner</b>	
Material	Castline: prime cardboard, white surfaced, printable backside
Thickness	205 µm ( ± 7,5%)
Grammage	180 g/m² ( ± 7,5%)
<b>Laminate</b>	
Thickness	355 µm ( ± 9%)
<b>Converting</b>	
Printability	Solvent inkjet, Eco- and Mild-Solvent Inks, Latex Inks
Plotting	Good plotting characteristics with cardboard liner.
Remark	The application at the printed side must take place only on glass. By application on plastics and lacquers reactions between surface and Solvent-Ink are possible. By use of Eco- and Mild-Solvent residues on the glass surface are possible.
<b>Regulations and Standards</b>	
The material has been tested against the following regulations and standards:	<ul style="list-style-type: none"> <li>• EN 71-3 (Safety of toys, migration of heavy metals)</li> <li>• EN 71 Part 9-11 (Safety of toys, migration of Solvents, Monomers, Plasticizers)</li> <li>• DIN 53160 (Resistance to perspiration and saliva 6/1974)</li> <li>• according to this Regulation (EC) 1907/2006 suitable for toys and childcare articles</li> <li>• 2011/65/EU (RoHS - restriction of hazardous substances 06/2011)</li> </ul>
<b>General</b>	
Formats	1.000 mm x 25 m Special formats on request.
Size Tolerance	± 2mm over 1.000 mm ( ± 0,3%)
Storage Stability	1 year original packaging 21 °C (70 °F)/50% RH
Special Properties	PENSTICK® Sign is a cling vinyl that <ul style="list-style-type: none"> <li>• clings without adhesive on smooth, glossy surfaces (like glass, PET, PMMA, PC, .....)</li> <li>• could be easily removed</li> <li>• leaves no residues (in combination with lacquers and plastics the compatibility must be tested)</li> <li>• could be reused / reapplied.</li> </ul>

All technical properties are typical values.

#### PRODUCT PERFORMANCE AND SUITABILITY

All Statements, technical information and recommendations about our products are obtained from tests believed to be reliable. They are provided as a guide and shall in no event constitute a warranty of any kind. MOLCO therefore undertakes no responsibility either for the result deriving from their adoption or for any claims or liability arising from the use of the material. It is not recommended to swallow pieces of film. Because conditions of use are beyond our control, all products are sold with the express understanding that the purchaser has independently determined the suitability of such products for its purpose. Subject to technical changes without prior notice.

