

Rigid PVC-film: **Pentaprint PR M180/23**  
 Colour: **09/9401 ... 09/9407 – white opaque**  
 Surface: **120\_1 - glossy/glossy**

Regarding the heavy metal limits these calendered rigid PVC films meet the requirements of the EC directive 94/62/EC and their supplements 99/42/EC, 99/177/EC, 2004/12/EC and 2005/20/EC.

The films are in conformity with the German Consumer Articles Ordinance of 23.12.1997 and the EC-Directive 2002/72/EC as well as its amendments 2004/1/EC, 2004/19/EC and 2005/79/EC. The rigid PVC-films are also corresponding to the directives of the German BfR, recommendations II, IX and LII. Residual VC-monomer content < 0,5 ppm (in conformity with the EU-directive 78/142/EEC, annex I).

Specific properties:           - high impact strength  
                                      - suitable for screenprinting and UV-offset  
                                      - good chemical resistance

Properties	Standard	Value	Unit	Remarks
Thickness	DIN 53370 ISO 4593	80 – 800	mic	tolerances: ± 10 % ( ≤ 200 mic) ± 7 % (> 200...400 mic) ± 5 % (> 400...800 mic)
Density	DIN EN ISO 1183-2	1,49 ± 0,02 1,46 ± 0,02 1,43 ± 0,02 1,41 ± 0,02 1,40 ± 0,02 1,39 ± 0,02 1,39 ± 0,02	g/cm <sup>3</sup>	for colour 09/9401 ( 80 ... 200 mic) for colour 09/9402 (201 ... 300 mic) for colour 09/9403 (301 ... 400 mic) for colour 09/9404 (401 ... 500 mic) for colour 09/9405 (501 ... 600 mic) for colour 09/9406 (601 ... 700 mic) for colour 09/9407 (701 ... 800 mic)
Tensile strength - depends on thickness	DIN EN ISO 527-3	≥ 45	N/mm <sup>2</sup>	test speed V (50 mm/min); measured lengthwise
Tensile impact strength	DIN EN ISO 8256	≥ 550	kJ/m <sup>2</sup>	measured lengthwise
VICAT-softening point	DIN EN ISO 306	74 ± 2	°C	measured in oil, method B/50
Shrinkage  - longitudinal  - transverse	DIN 53377	  max. - 7 max. - 5  max. ± 2	%	storage in heated cupboard, at 140 °C/10 min ( ≤ 200 mic) ( > 200 mic) ( 80 ... 800 mic)
Max. temperature load without remaining change of size		+ 55	°C	
Cold break temperature	DIN EN 1876-2	- 25	°C	drop hammer method
Surface tension	DIN ISO 8296	≥ 34	mN/m	measured with test inks
Surface reflexion		> 70	GE	measuring angle 20°

All details in this data sheet are based on our present technical knowledge.  
 They neither guarantee certain characteristics of products nor their suitability for a particular application.