



# serilor® HR HIGH RESISTANCE SQUEEGEE

**serilor®HR** is a special polyurethane blade with exceptional combined resistance to chemicals and abrasion. It was developed to withstand the toughest applications in screen printing and to have a long shelf life in most environments.

**serilor®HR** blades are manufactured with a centrifugation process to avoid bubbles and craters in the material and to bring optimal homogeneity to the compound, even at the core of the material and after grinding. Our exclusive computer controlled casting process guarantees batch to batch consistency. Each serilor® HR blade is inspected for edge quality and profile.

### Advantages:

- Maximum resistance to chemicals
- Maximum resistance to abrasion
- High environment stability (temperature, humidity)
- Sharpens well
- Individual package protects from light and dust
- Individual batch and reference ink jet marking on blade
- High test inspection for aspect defects

### Applications:

- Graphics multi-purpose
- Graphics specialities (electronics, industrial etc....)
- Object / Container printing
- Automated textile printing
- Manual or automatic equipment use

### serilor® HR1 Mono layer



**Marking:** serilor® HR1 length X width X thickness Profile hardness [batch N°] MADE IN FRANCE

#### Standard hardnesses :

soft 65shA white  
medium 75shA white  
hard 85shA white

60,70,80,90 and other durometers are available as specials

### serilor® HR3 Triple layers



**Marking:** serilor® HR3 length X width X thickness Profile hardness [batch N°] MADE IN FRANCE

Recommended when high speed automatic printing equipment is used, serilor® HR3 has a 90shA hard centre layer for support, ideal for fine lines and halftone printing. **Using Triple durometer squeegees will extend your squeegee life, help prevent dot gain, and generate immediate savings on ink and other consumable through better control of the squeegee pressure.**

#### Standard combinations :

Triple medium (75/90/75shA) white/Green/white

Triple soft (65/90/65shA) white/Red/white



### Standard Profiles:



**P0:** Straight Square Edge for HR1 & HR3



**P1:** Double Bevel + Flat land for HR1



**P5:** Double Bevel (V type) for HR1



**P6:** Single Bevel for HR1



**D:** "Diamond" square profile for HR1

Specifications :		Tolerances :
Length :	3660 mm / 12 ft	≥ 3640 mm
Width :	9,5mm (3/8") to 35mm (1-3/8")	±1,0 mm
	35mm (1-3/8") to 100mm (4")	±1,5 mm
Thickness :	4mm (5/32") ≤ T < 10mm (13/32")	+0,3 mm / -0,5 mm
	T ≥ 10mm (13/32")	+0,4 mm / -0,6 mm
Hardness :	60 to 95 shA	±3 shA

## Instructions:

In general softer grades (65sh) are used for increased ink deposits and high coverage printing. Harder grades (85sh) are used for reduced deposits, notably when printing UV inks for fine texts and higher line counts.

Do not apply excessive pressure on squeegees as this makes your ink deposit heavy and uncontrollable and creates excessive wear. It is recommended that your squeegee slightly exceeds the printed image in size, and to leave significant free space between your screen edge and both squeegee ends.

Gently insert the squeegee in a machine or hand holder. Use appropriate squeegee thickness to avoid forcing the blade in the holder. If the holder construction allows for it, regularly change the printing side of the squeegee to minimise the effect of bending with speed and pressure. Rotate your squeegee : do not wait until mechanical & chemical wear bends permanently back your blade to replace it by a fresh one and allowing it to relax, flat, for up to 24 hours.

### • Cleaning

Remove excess of ink with a cardboard or a soft cloth. Wash blade with an impregnated cloth or in an appropriate cleaning machine. Avoid the use of aggressive chemicals, in particular ink thinners. Let the squeegee rest and the chemicals evaporate before re-use or sharpening.

### • Sharpening

serilor® HR squeegee blades can be sharpened by all methods commonly used in the screen printing industry (Fimor offers an extended range of diamond wheel sharpeners, please contact us for more informations).

- Belt grinders
- Wheel sharpeners
- Knife cutting machines

Sharpen dry squeegees only. Never allow a squeegee with solvents to be sharpened and don't wash a hot, freshly sharpened blade with chemicals. Do not try to grind excessive material in one pass.

Precision printing requires a preventive sharpening to accommodate the squeegee edge to the holder shape.

### • Storing / Shelf life :

For all medium or long term storage, blades must be kept flat, unrolled, especially prior to use. Store in a dry cool place away from any direct source of light. If the squeegee is exposed to extreme temperature and humidity conditions, its hardness characteristics may be altered.

## Physical and Chemical specifications: (for 75 shA HR1 grade)

Properties	Units	Norms	Values
Shore hardness at 20°C	shA	DIN 53505	75
Tensile modulus at 10% elongation	MPa	DIN 53504	1.10
Tensile modulus at 100% elongation	MPa	DIN 53504	4.45
Tensile modulus at 200% elongation	MPa	DIN 53504	7.40
Tensile modulus at 300% elongation	MPa	DIN 53504	13.30
Tensile strength	MPa	DIN 53504	50
Tensile strain at break	%	DIN 53504	450
Tear resistance (non initiated tear)	KN/m	DIN 53515	89
Tear resistance (initiated tear)	KN/m	DIN 53515	22
Resilience	%	DIN 53512	24
Abrasion loss	mm <sup>3</sup>	DIN 53516	< 30
DRC (25% of crushing during 22 hours at 70°C)	%	DIN 53517	48
Shore hardness at -5°C	shA	DIN 53505	85
Shore hardness at +80°C	shA	DIN 53505	73
Specific gravity	g/cm <sup>3</sup>		1.18
Swelling in solvent (70% dihydrofuranone basis)	%	ISO 175	< 20

Manufactured by:



[www.serilor.com](http://www.serilor.com)

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ISO 9001:2000  
Certificat : 01 100 037007

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