

# Joncryl® HLS 9012

<b>general</b>	acrylic co-polymer emulsion for heat-seal lacquers on pharmaceutical blister lidding foil sealed against PVC, PVDC coated PVC and PET
<b>key features &amp; benefits</b>	<div>water-based</div> <div>economical</div> <div>low odor (low-retained solvent)</div>
<b>chemical nature</b>	acrylic co-polymer emulsion

## Properties

<b>appearance</b>	translucent emulsion
<b>typical characteristics</b> <i>(should not be interpreted as specifications)</i>	<div>non-volatile40 %</div> <div>acid value (on solids)35</div> <div>Brookfield viscosity at 25 °C30 mPa.s</div> <div>pH8.8</div> <div>density at 25 °C1.04 g/cm<sup>3</sup></div> <div>minimum film-forming temperature&lt; 5 °C</div>

## Application

### Pharmaceutical blister pack lidding foil

Joncryl® HSL 9012 acrylic co-polymer emulsion has specifically been developed for heat-seal lacquers on push through lidding foil for pharmaceutical blisters. Heat-seal lacquers based on Joncryl® HSL 9012 are suitable for hard- and soft tempered aluminum push through foils in all standard gauges. Lidding foil is against PVC, PVDC coated PVC and PET heat-sealing.

Joncryl® HSL 9012 will offer the following performance in comparison to conventional solvent-based heat-seal lacquers:

- cost-effective in use
- pharmaceutical lidding foil free of retained solvents
- blister integrity comparable to conventional systems
- water-based alternative for primer is also available

## Typical formulations using Joncryl® HSL 9012

Joncryl® HSL 9012 can be formulated with commonly used defoamers and wax additives to improve press stability and scratch resistance. The product can be diluted with water to the desired viscosity level.

93-94 parts	Joncryl® HSL 9012
3-5 parts	talcum
1-2 parts	wax
0.5 parts	defoamer
100.0 parts	

## Converting

Heat-seal lacquers based on Joncryl® HSL 9012 can be applied on standard converting machines.  
Dilution with water to required application viscosity.

recommended coating weight : 4-6 g/m<sup>2</sup>  
drying temperature : 100 – 180 °C

For complete solvent-free conversion Joncryl® HSL 9012 has been developed to be used in combination with Joncryl® HSL 9022, acrylic co-polymer for water-based pre-print primers.

Primers based on Joncryl® HSL 9022 are printable with water-based, UV-curing and solvent-based printing inks.

## Technical performance

Lidding foils based on Joncryl® HSL 9012 are sealable to PVC, PVDC coated PVC, and PET blister films. The product is not recommended for sealing against PE and PP blister materials.

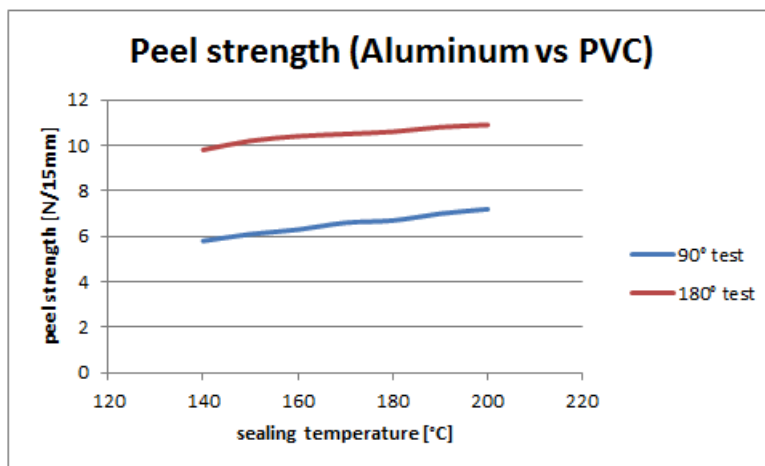
Foils are suitable for conventional blister lines. Recommended seal conditions:

temperature : 160 – 220 °C  
pressure : >30 N/cm<sup>2</sup>  
time : 0.5 – 1.0 s

## Bond strength

### Test conditions

substrate : 20 µm hard aluminium, glossy side  
drawdown : 12 µm wire rod, 40% solids, dried 20" at 140 °C  
coating weight : 4 – 6 g/m<sup>2</sup>  
seal conditions : one side heated, 0.5" at 30 N/cm<sup>2</sup> at varying temperatures  
tensile test : 150 mm/min (90° and 180° test)



## Water resistance

Sealstrips were stored for 1 hour in tap water at RT (22 °C) after which bond strengths are determined.

Results: (at 200 °C seal and 90 °C test)

dry bond strength: 7.3 N/15 mm

wet bond strength: 6.0 N/15 mm

## Seal integrity

Vacuum blister performance was tested as follows:

seal conditions : 20 µm hard aluminium against PVC strips  
one side heated  
0.5" at 30 N/cm<sup>2</sup> at various temperatures

measure conditions : 2 minutes at 700 mBar vacuum, 5 minutes waiting time (in colored water)

results : leak free blisters from 160 °C sealing temperature.

Joncryl® HSL 9012 TDS EN (08-2019)

## Safety

When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

## Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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