

Jujo Thermal – Specialty Paper Expertise

A misty forest of evergreen trees, likely a coniferous forest, with a soft, hazy atmosphere. The trees are densely packed and their colors range from deep green to a lighter, misty green. The overall scene is serene and natural.

JTK®

SHIELDPLUS

**Barrier paper range for flexible packaging with excellent
O₂ and H₂O gas barrier properties**

Recyclable and renewable barrier papers for flexible packaging

SHIELDPLUS® delivers a balanced combination of light weight and high barrier performance. It is recyclable thanks to its wood fibre base and water-based barrier coating. It

- Designed for packaging a wide variety of food products, including tea, coffee, seeds, flakes, flour, grains, rice, baked goods, salty snacks, and ready meals.
- Suitable for direct food contact with dry, moist and fatty food.
- Excellent barrier properties to protect the contents and to maintain their quality.
- Alternative for packages where presently barrier films made from plastic or aluminium are used.



Why SHIELDPLUS®?

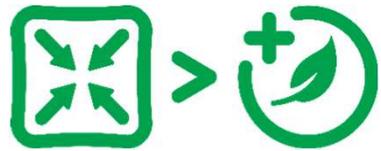


Why choose our papers

- Global sales & customer service network
- Technical customer support
- Environmental policy exceeds the national and EU standards

PEFC
www.pefc.org

FSC
www.fsc.org
FSC® C012266



To reduce use of plastics

You can decrease the use of plastics and aluminium and increase biomass use instead. With SHIELDPLUS® you can reduce the number of layers and simplify the converting process.



To support sustainability

SHIELDPLUS® is made from FSC certified pulp. It is recyclable. Thanks to its water-based coating, SHIELDPLUS® is free of PVDC and PVC. It is also PFAS free.



To enhance process performance

The process performance and printing properties of SHIELDPLUS® are superb, making it suitable for various end applications.

SHIELDPLUS[®] BARRIER PAPER RANGE

The full range is suitable for direct food contact and have excellent water vapour and oxygen barrier properties.



- White packaging material.
- Recyclable and biodegradable.

SHIELDPLUS[®]



- White packaging material with excellent printing properties
- Integrated heat-sealability and high-definition properties for RotoGravure needs available

SHIELDPLUS[®] Graphic



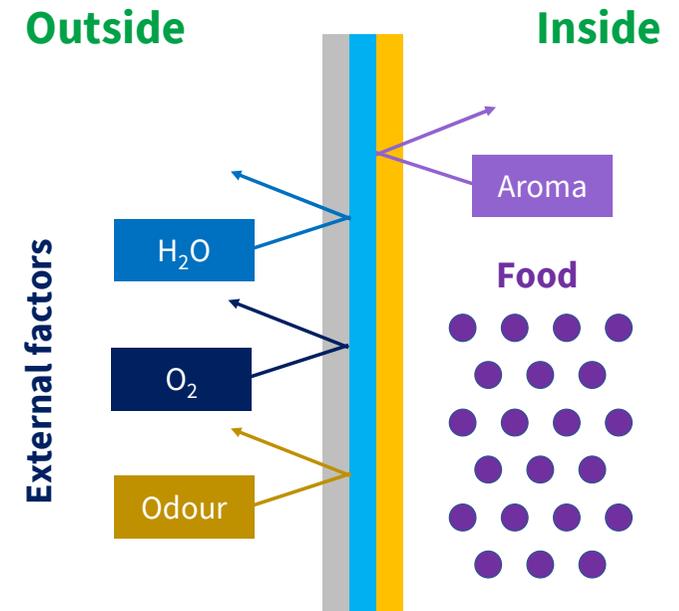
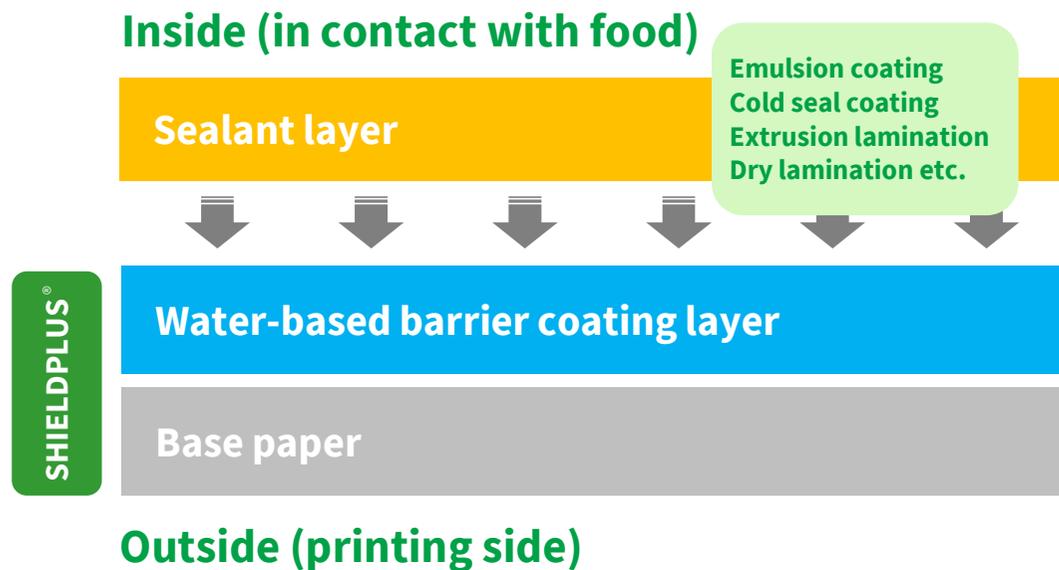
- Brown packaging material.
- Integrated high-definition properties for RotoGravure needs available

SHIELDPLUS[®] BR

Technical specifications

Structure & barrier properties

SHIELDPLUS[®] = Specialty base paper + **Water-based** (PVDC free) barrier coating



Barrier properties

Property	Unit	Value
OTR * (23°C/50%RH)	ml/m ² × day × atm	Less than 5
WVTR (23°C/50%RH)	g / m ² × d	Less than 5
KIT value	Visual evaluation	12 (target)
Hexane VTR	g / m ² × d	5 (target)

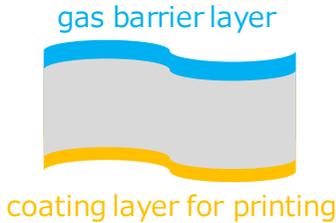
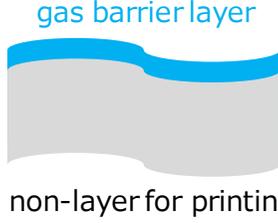
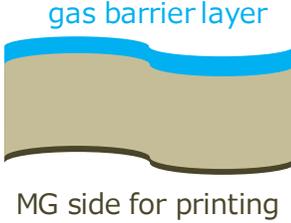
* After coating of commercial sealant dispersion to barrier side of SHIELDPLUS®

- **FSC and/or PEFC** chain of custody certifications.
- Jujo Thermal has **ISO 22000** certificate.
- Has been tested for food contact compliance by an external institute (**ISEGA**)

EXCELLENT BARRIER AGAINST

- Gas (O₂ and H₂O)
- Solvents
- Mineral oils

Product range

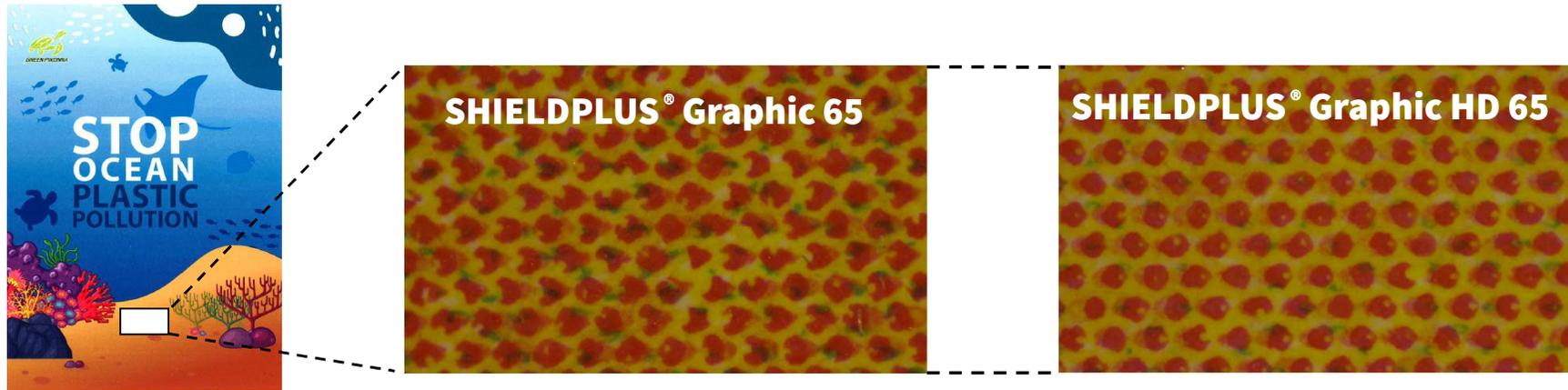
	SHIELDPLUS Graphic				SHIELDPLUS		SHIELDPLUS BR	
color	white				white		brown	
base weight(gsm)	65	HD 65	90	HD 90	58	80	60	HD 60
structure								
printability	gravure/flexo/digital				flexo/digital		gravure/flexo/digital	
biodegradability (EN13432)	-	-	-	-	✓	✓	✓	✓
recyclability (CEPI test method v2)	✓	✓	✓	✓	✓	✓	✓	✓
application	dry, moist and fatty food(FDA CFR 21 176.170 and BfR XXXVI)							
other		high gravure		high gravure coming soon		coming soon		high gravure

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HD grade for high RotoGravure quality

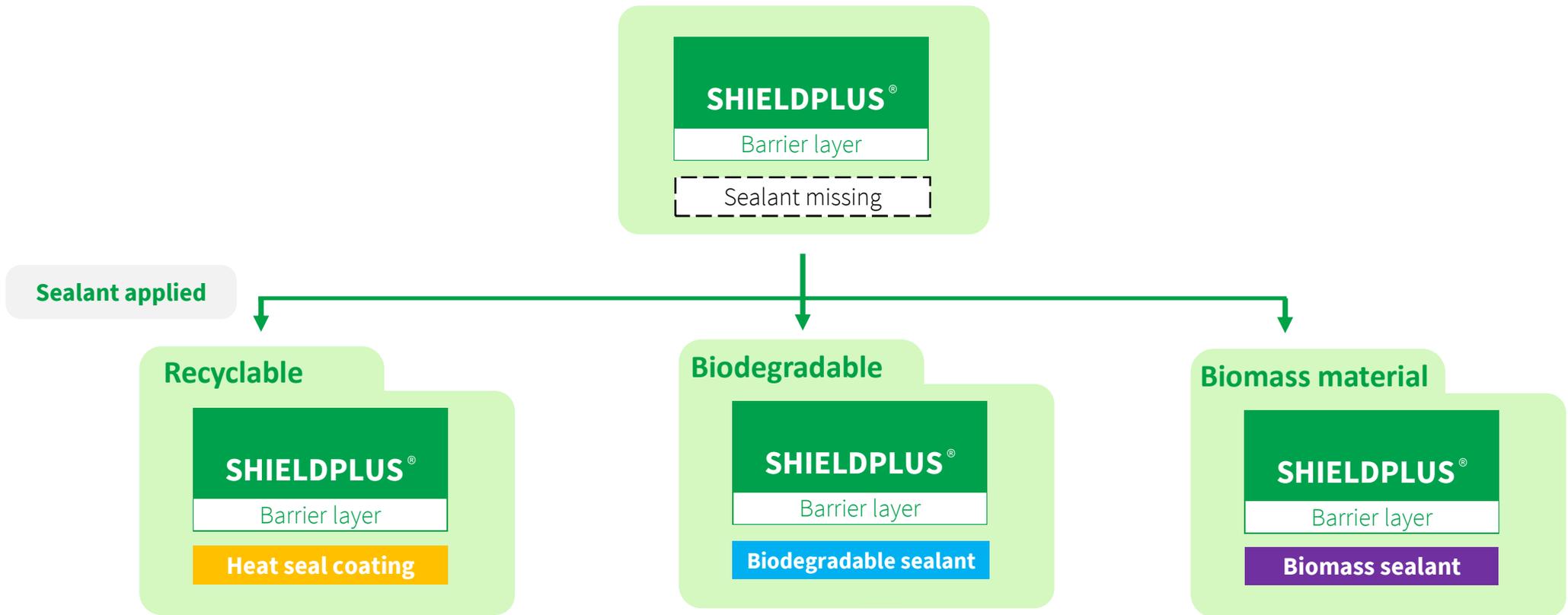
Available HD (high definition) grades:

- SHIELDPLUS® Graphic HD
- SHIELDPLUS® BR HD



RotoGravure image

Sealant options

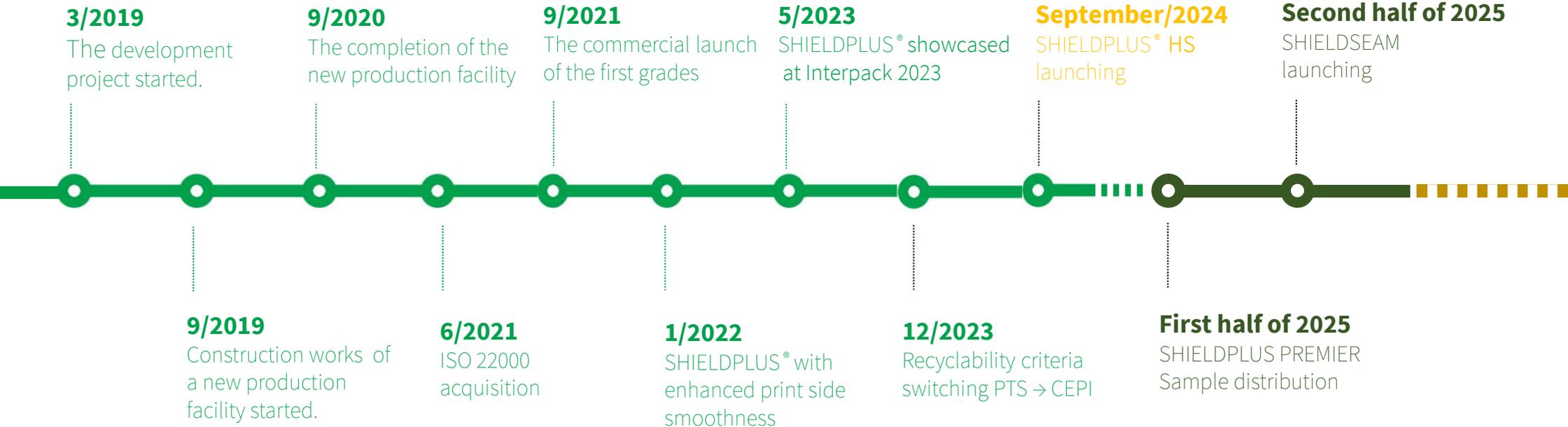


Product development path

Future concepts:

SHIELDPLUS® PREMIERE for tropical conditions

SHIELDSEAM® is high spec heat seal paper

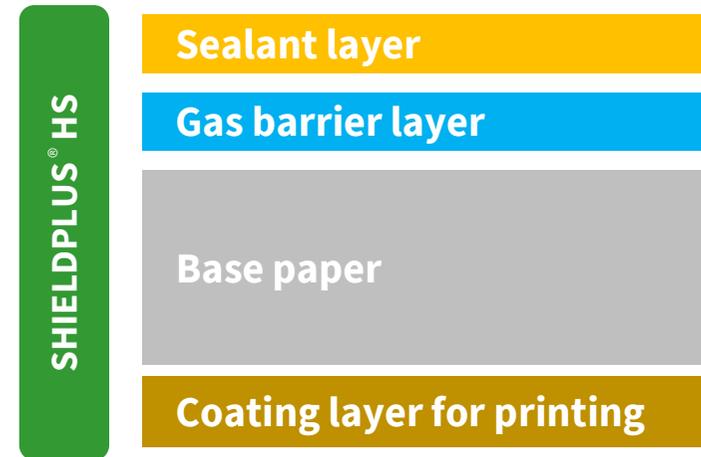


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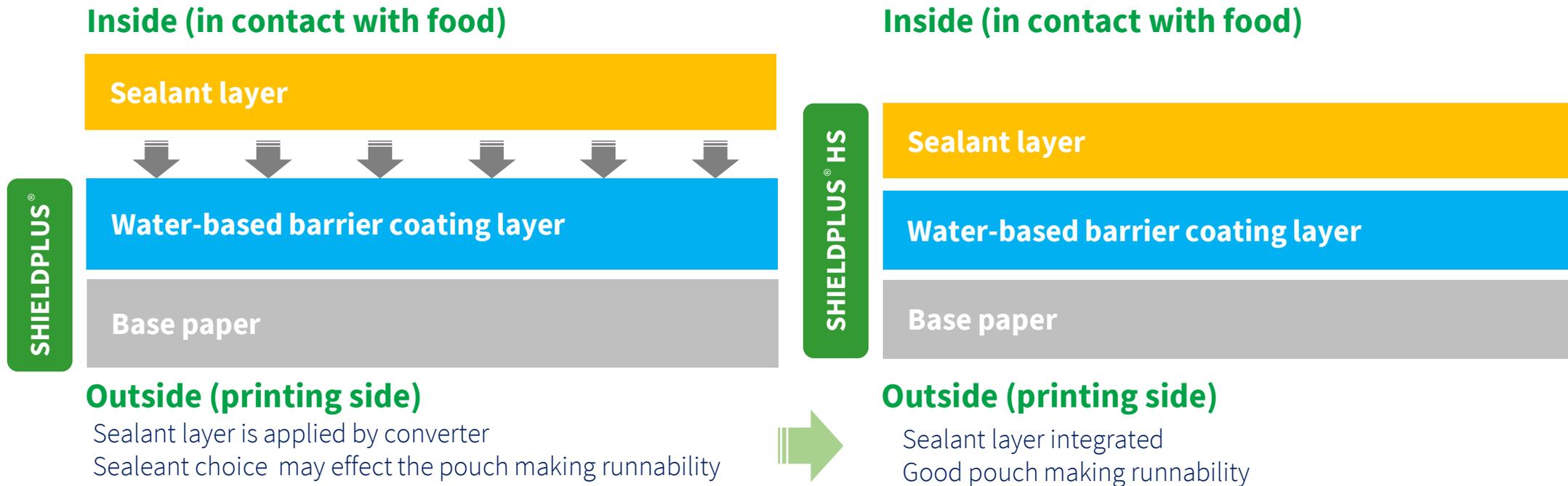
SHIELDPLUS GRAPHIC HS WITH INTEGRATED HEAT-SEALABLE PROPERTIES

NEW! SHIELDPLUS[®] Graphic HS

- SHIELDPLUS[®] Graphic base with integrated heat sealant layer.
- Excellent heat-sealing properties
- Recyclability(CEPI v2)
- Designed for direct food contact.
- Good water drop resistance for moist food application.
- Approved according to the BfR recommendations and FDA regulations.



Integrated heat-sealing properties available for SHIELDPLUS[®] Graphic grades



Integrated heat-sealant layer optimized runnability

Tested in cooperation with printers & machine manufacturers.

- 3 and 4 side seal bags



Proven performance

The grades with integrated heat-sealing properties are tested in collaboration with machine manufacturers to optimise their performance in printing and converting lines.



- 3 and 4 side seal bags



- Stand-up pouches



- Stick sugar bag

Thank you for your interest!

Contact us for further information:

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