# **Compound films**

- with 2-component solvent-free polyurethane adhesives
- with 2-component polyurethane adhesives with solvents





## Flexible packaging for food



The industry around the manufacture of flexible packaging has been on an expansion course for years, which makes flexible packaging today also an abso-lute must in the food sector. The advantages of flexible packages like paper bags, reinforced bottom bags, blister packs, or lids for plastic dishes, are plain to see: low weight of the primary packaging, cost reduction due to the lower stock space requirements, and last but not least the chance to design and modify these materials according to individual requirements. Foils are often printed for marketing purposes with elaborate surface designs (reverse or offset printing), they are metallised (e. g using aluminium) or coated with silicon oxide as barrier function. Foils therefore offer a huge variety of possible compounds, with the associated requirements that also have to be matched by the adhesive.

These individual characteristics of the foils meet the respective functions and requirements of the compound. A compound foil always has three layers: exterior, core and interior. These layers are to be connected, which needs adhesives that can create an optimum performance in the compound in spite of the low grammages and the constantly increasing laminating speeds.

This is why Jowat is now focusing on two-component

polyurethane systems for these applications. The two-component PU system free of solvents consisting of **Jowat® 768.10** and **768.11**, has been optimised for a wide spectrum of diverse foils. No matter if polyethylene is the sealing layer or metallised polypropylene is the barrier. Major characteristics are the superior mechanical processing characteristics and also the high initial strength. The final processing stage shows the outstanding properties of these products in the aspects flexibility, good sealing and high transparency.

For all adhesives going by the description "reactive", a possible migration of toxic substances is a major consideration under food contact aspects. This means that research concerning a residual content in aromatic amines must be carried out. The solvent-free products by Jowat are suitable for food contact according to EU directive 1935/2004 in combination with the regulation EU 10/2011 for food contact

Foil compounds are often used that need to exhibit an elevated stability level in pasteurising, sterilising or also in contact with greasy of high-acid contents, also at the end consumer. This is where Jowat recommends a solvent-based two-component system, Jowat® 428.10 and 428.20 created by Jowat for achieving higher compound strengths.

### Jowat® 768.10 + 768.11

2-component solvent-free PU laminating adhesive for the manufacture of compound foils for standard applications in the area flexible food packaging. Suitable for types of laminators operating solvent-free, or dual lines which can run both solvent-free lamination adhesives as well as those containing solvents.

	Jowat <sup>®</sup> 768.10	Jowat® 768.11		
	Component A	Component B		
Basis	Isocyanate	Polyol		
Viscosity	5000 - 8500 mPas	350 - 800 mPas		
Density	approx. 1.14	approx. 0.99		
Solid content	100 %	100 %		
Mixing ratio/ppw	100	50		
Pot life at 40 °C	approx.	approx. 30 min		



#### Jowat® 428.10 + 428.20

2-component solvent-based PU laminating adhesive for the manufacture of compound foils for special applications for flexible packaging of food. Suitable for compounds which are intended for a possible end use in pasteurizing or sterilizing processes. To be used on laminators with drying and ventilation units.

	Jowat® 428.10	Jowat® 428.20
	Component A	Component B
Basis	Polyester	Hardener
Viscosity	250 - 500 mPas	approx. 100 mPas
Density	approx. 1.09	approx. 1.01
Solid content	59 - 61 %	100 %
Mixing ratio/ppw	100	2.5
Solvent	Ethyl acetate	none





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