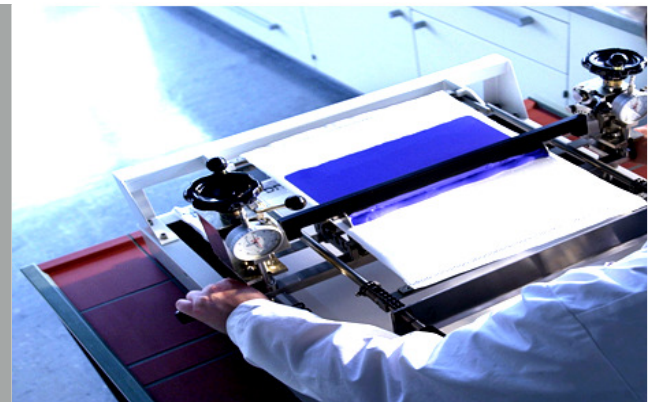




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Coating

Basic information and
application areas





- Why do we coat?
- Coating polymers
- Additives
- Paste coating
- Foam coating
- Tailormade compounds
- Anti-slip coating

Why do we coat?



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Modification of:

- Appearance
- Handle
- Surface
- Functional properties



Why do we coat?



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Appearance and handle

- soft
- waxy
- oily
- glossy
- stiff
- double face

Function

- waterproof
- breathable
- water/oil repellent
- black-out
- flame retardant
- hot sealable
- conductive
- HF-weldable
- heat/light reflective

Coating products



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Polymers

→ PERICOAT ...

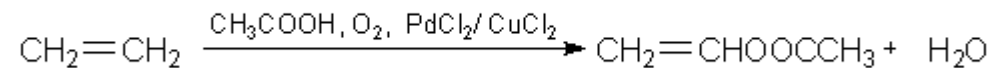
Compounds

→ PERICOAT COMPOUND ...

→ PERICOAT ...

Synthesis method

1. Synthesis of vinyl acetate



2. Radical polymerization:



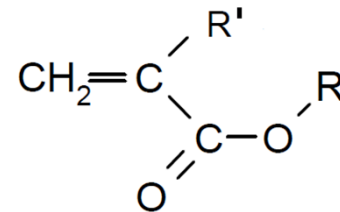
To increase the range of properties often copolymers are used.

Possible copolymers are e.g.:

- vinyl chloride
- acrylates
- ethylene

Synthesis method

1. Monomer

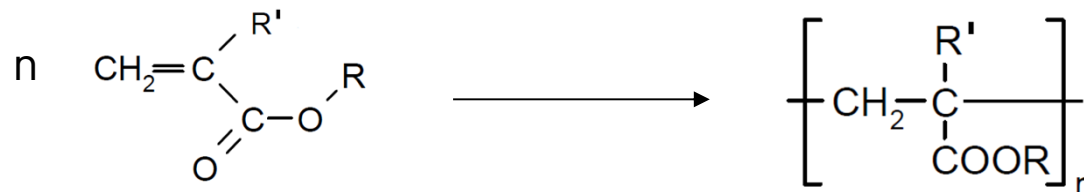


R' = H: ester of acrylic acid

R' = CH₃: ester of methacrylic acid

R = e.g.: CH₃; CH₂CH₃; CH₂CH₂CH₃ etc.

2. Radical polymerization



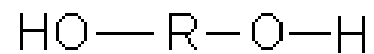
polyacrylate/polymethacrylate

Possible copolymers are e.g.:

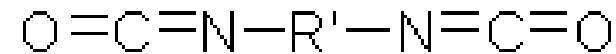
- vinyl acetate
- styrol
- acrylamide
- acrylonitrile

Synthesis method

1. Monomers

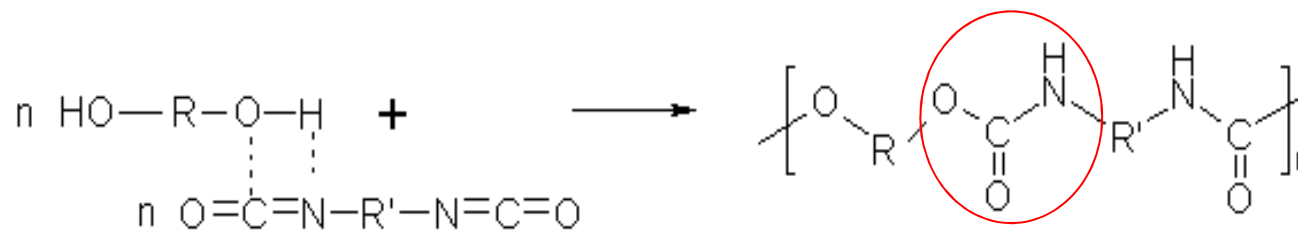


Diol



Diisocyanate

2. Polyaddition



Urethane
group

Polymers



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Vinyl acetate	Acrylate	Polyurethane	
PERICOAT VA ...	PERICOAT AC ...	PERICOAT PU...	
100	222	300	soft
110	225	310	
120	230	320	
130	235	325	
140	240	330	
150	249	340	
	250	350	hard

Other polymers



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Polyvinylchloride

→ PERICOAT VC ...

PERICOAT VC 520

Polyester

→ PERICOAT PES

PERICOAT PES

- **Foaming agent:**
 - PERICOAT FOAMER HPO
 - PERICOAT FOAMER HPI
 - PERICOAT STABILIZER STA
- **Crosslinking agent:**
 - PERICOAT CROSSLINKER MV
 - PERICOAT CROSSLINKER IC
- **Thickener:**
 - PERIPRINT TN
 - PERIPRINT TA

Additive



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-
- **Filler:** PERICOAT COMPOUND KAO
 - **Defoamer:** PERIFOAM EX
PERIFOAM EX/SI
 - **Fluorocarbon:** PERIGUARD NSF
PERIGUARD CSF
PERIGUARD FCC



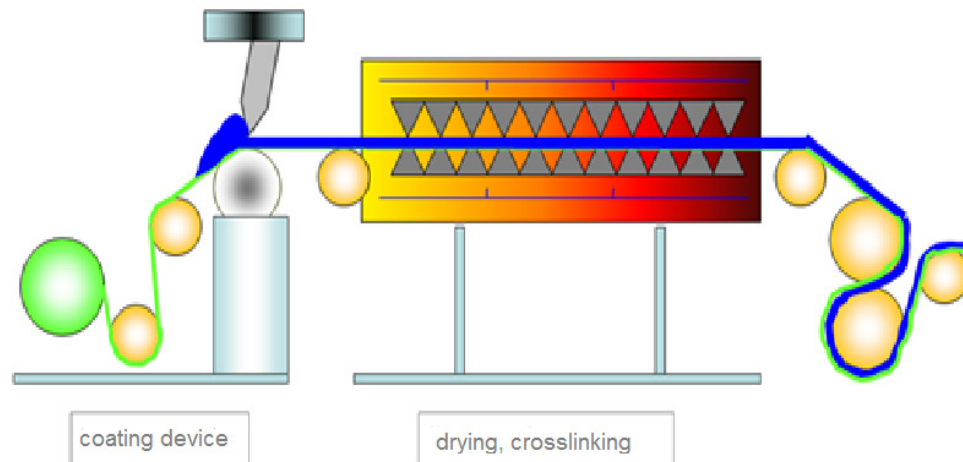
-
- **Flame retardant:**
 - PERIGUARD FR/H
 - PERIGUARD FR/ATH
 - PERIGUARD VP 207
 - PERIGUARD FR/PM

 - **Matting agent:**
 - PERICOAT SIK
 - PERICOAT MATT

Coating machine



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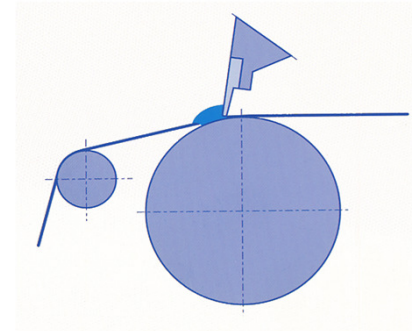
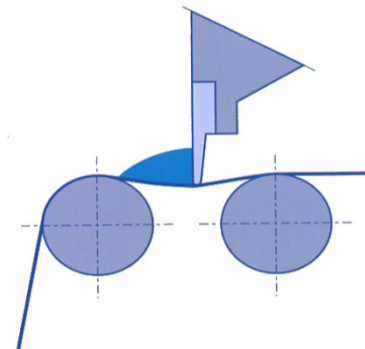


Suppliers, e.g.:

- Jakob Weiß & Söhne Maschinenfabrik GmbH
- SPGPrints B.V.
- Zimmer Austria
- Brückner Trockentechnik GmbH & Co. KG
- Coatema Coating Machinery GmbH

Basic recipe:

- 100 parts PERICOAT – Polymer oder PERICOAT COMPOUND
- 1 part PERIFOAM EX
- 2 parts PERICOAT CROSSLINKER MV
- x parts PERIPRINT TN



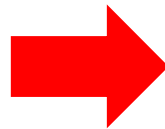
Paste coating



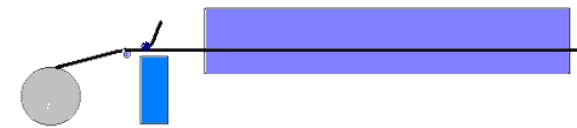
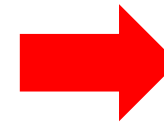
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Compound



Adjust viscosity for coating



Knife on roll
coating or
screen printing

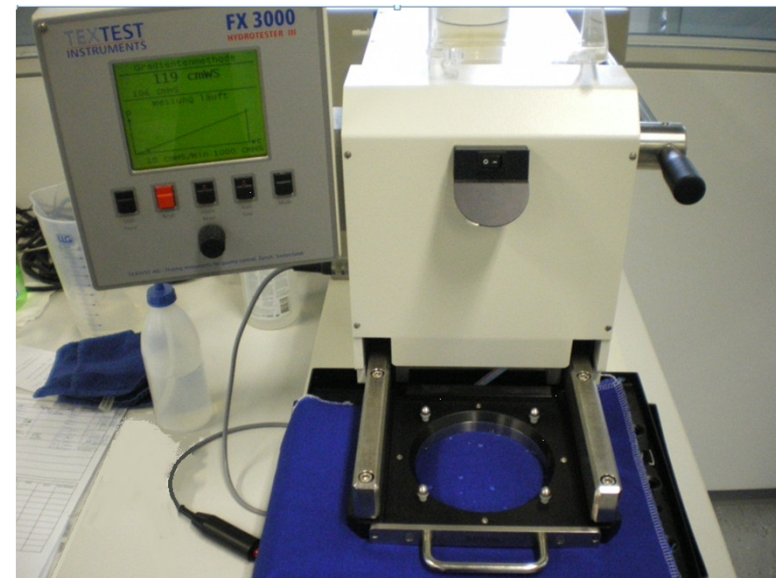


Benefits of paste coating



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- One-side effects possible
- Depending on the used polymers and additives many effects are possible, such as:
 - flame retardancy
 - waterproofness
 - weldability



Field of application



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Technical textiles

- Tent and truck tarpaulins
- Sun protection (awnings, blinds,...)

Home textiles

- Upholstery fabric
- Table clothes

Fashion coating

- Handle effects (paper touch, wax touch...)
- Effect

Work wear

- Waterproof
- Flame-retardant

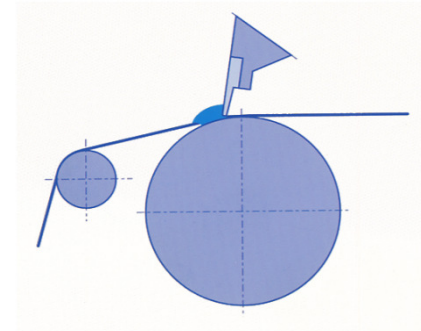
Foam coating



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Basic recipe :

100	parts	PERICOAT- polymer or Compound
		pH 9 – 10 with ammonia
x	parts	PERIPRINT TA
6	parts	PERICOAT STABILIZER STA (for stable foam coating)
1	part	PERICOAT FOAMER HPO or HPI
2	parts	PERICOAT CROSSLINKER MV



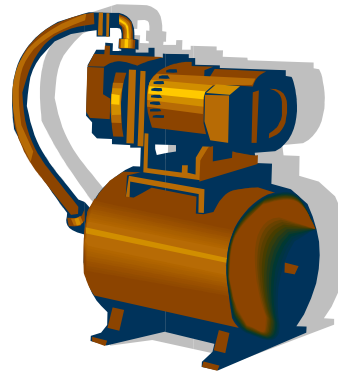
Foam coating



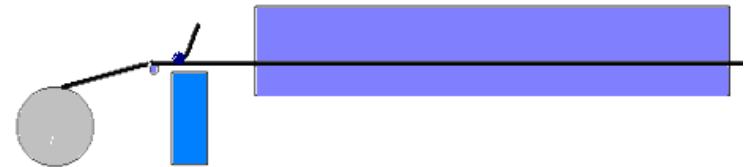
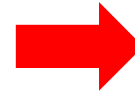
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Ready to use
compound



Continuous foaming by
foam generator



Knife on roll
coating



Foam coating



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Supplier of foam mixer, e.g.

- SPGPrints B.V.
- Hansa Industrie Mixer GmbH & Co. KG
- beba Mischtechnik GmbH

Benefits of foam coating



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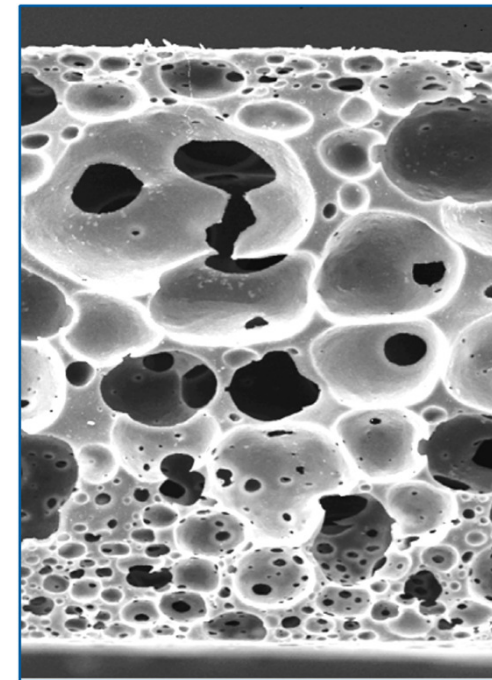
- Softer handle
 - Breathability
 - Saving weight and product
 - Heat and cold insulating
 - Noise dampening
 - Less penetration into the fabric
 - Incorporating of flame retardants possible
-

Field of application



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- Blackout-articles
- Wiping clothes
- Back coating of upholstery fabrics
- Back coating of carpets
- Anti-slip coating



Tailormade compounds



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Application area:

- Technical textiles
- Home textiles
- Work wear
- Fashion coating



Compounds for the finishing of tent fabrics





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	application	fibre	properties
PERICOAT MTF NEW	impregnation	CO	flame retardant water repellent water proof fungicidal
PERICOAT SEYN	impregnation paste coating	CO/PES	flame retardant water repellent water proof
PERICOAT THF	paste coating	CO CO/PES	flame retardant (halogen free) water repellent water proof fungicidal

Compounds for anti-slip coating



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	application	Intended use / properties	
PERICOAT DU/AR	stable foam coating	doormats	
PERICOAT VL/3M	printing	home textiles expandable	

Compounds for home textiles



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	properties	
PERICOAT BO/TK	<ul style="list-style-type: none">• for blackout articles• Stable foam coating	
PERICOAT BO/FR WHITE PERICOAT BO/FR BLACK	<ul style="list-style-type: none">• for blackout articles• Stable foam coating• flame retardant, halogen-free	
PERICOAT COMPOUND TC1	<ul style="list-style-type: none">• For table clothes• Paste coating	
PERICOAT UP/FR	<ul style="list-style-type: none">• for upholstery fabrics• unstable foam coating• flame retardant	

Protective work clothing






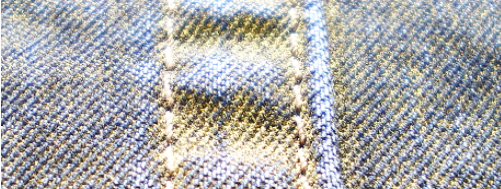
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	application	fiber	properties
PERICOAT AWP	paste coating	PA PES	water repellent oil repellent waterproof wash resistance
PERICOAT AW/FH	paste coating	PA PES	water repellent oil repellent waterproof wash resistance flame retardant
PERICOAT AW/FR	paste coating	PA PES	water repellent oil repellent waterproof wash resistance flame retardant (halogen-free)

Compound for fashionable effects



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	properties	
PERICOAT GLF	glossy coating paste coating	
PERICOAT LEATHER	leather like effect Paste coating	
PERICOAT DENIM UF	color coating unstable foam	
PERICOAT PEARL GOLD	glitter coating paste coating	



- Jakob Weiß & Söhne Maschinenfabrik GmbH
<http://www.jws-online.de/>
- SPGPrints B.V.
<http://www.spgprints.com/>
- Zimmer Austria
<http://www.zimmer-austria.com/ch/index.html>
- Brückner Trockentechnik GmbH & Co. KG
<https://www.brueckner-textile.com/de/>
- Coatema Coating Machinery GmbH
<http://www.coatema.de/de/>

Foam coating



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- SPGPrints B.V.
<http://www.spgprints.com/>
- Hansa Industrie Mixer GmbH & Co. KG
<http://hansamixer.de/>
- beba Mischtechnik GmbH
<http://www.beba-mischtechnik.de/>



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