

Kundennutzen der neuesten Spinnpräparationen für Vliesstoffe in Hygieneartikeln

18. Hofer Vliesstofftage 2003.



Dr. Oliver Kaltenecker

Product Group Manager Lubricants



Boehme

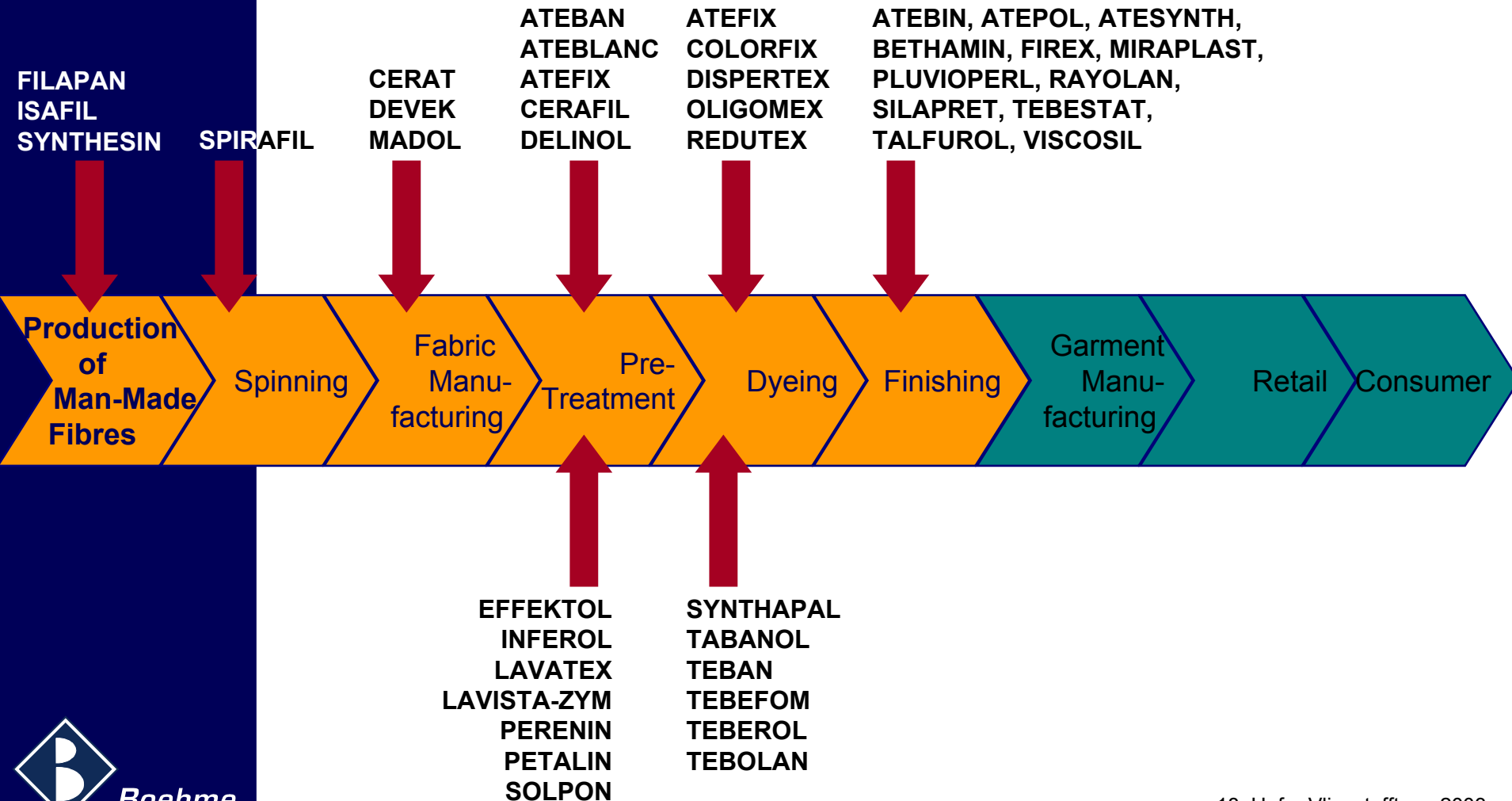
Inhalt

- **Einleitung**
 - **Boehme in der Chemiefaserindustrie**
 - **Vliesstoffe für Hygieneprodukte – wo werden Spinnpräparationen benötigt?**
 - **Anforderungen an Spinnpräparationen**
- **Ergebnisse und Vorteile von SYNTHESIN Spin Finishes**
- **Kundennutzen von permanent hydrophilen SYNTHESIN Spin Finishes**



*SYNTHESIN Spin Finishes
- Dedicated to nonwovens*

Positionierung in der Textilindustrie

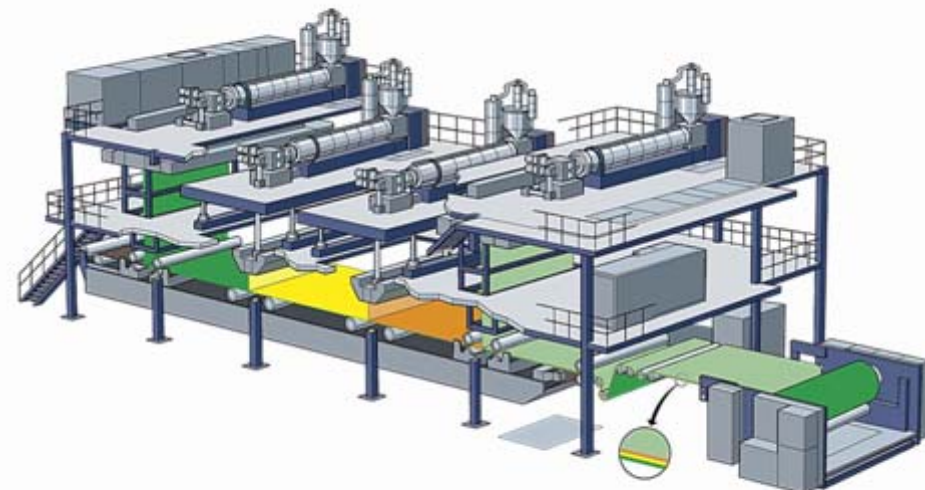
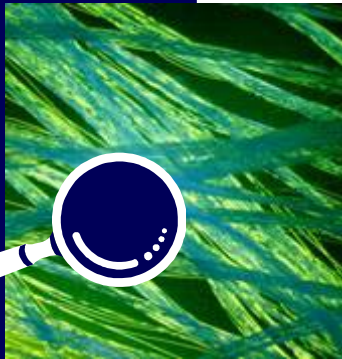


Aktivitäten der Lubricant-Gruppe

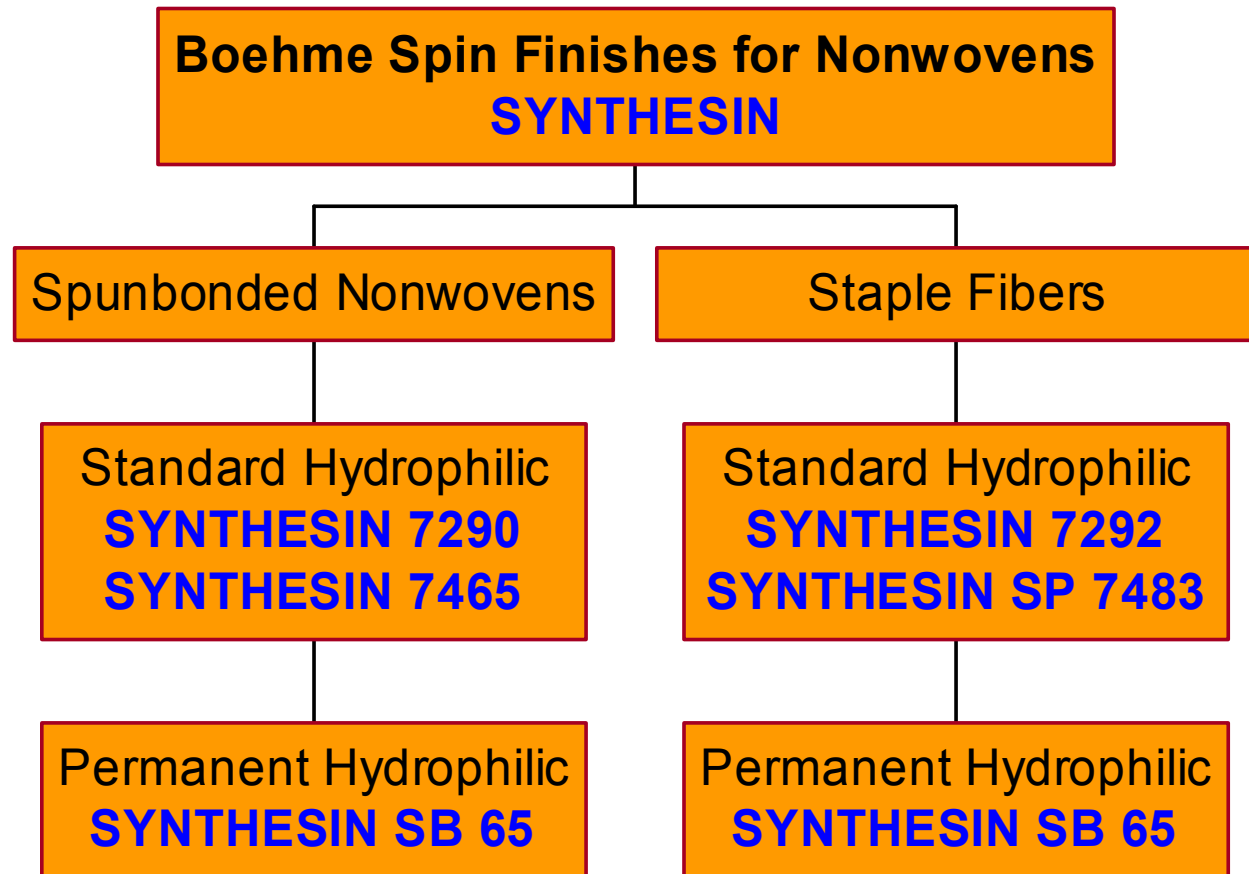
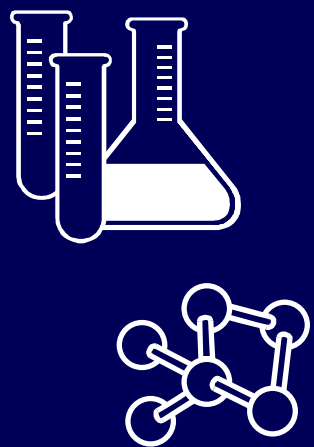
Spin finishes for:

- **Nonwovens**
 - **Spunbonded**
 - **Carded**
- **Staple Fibers**
- **Filaments**

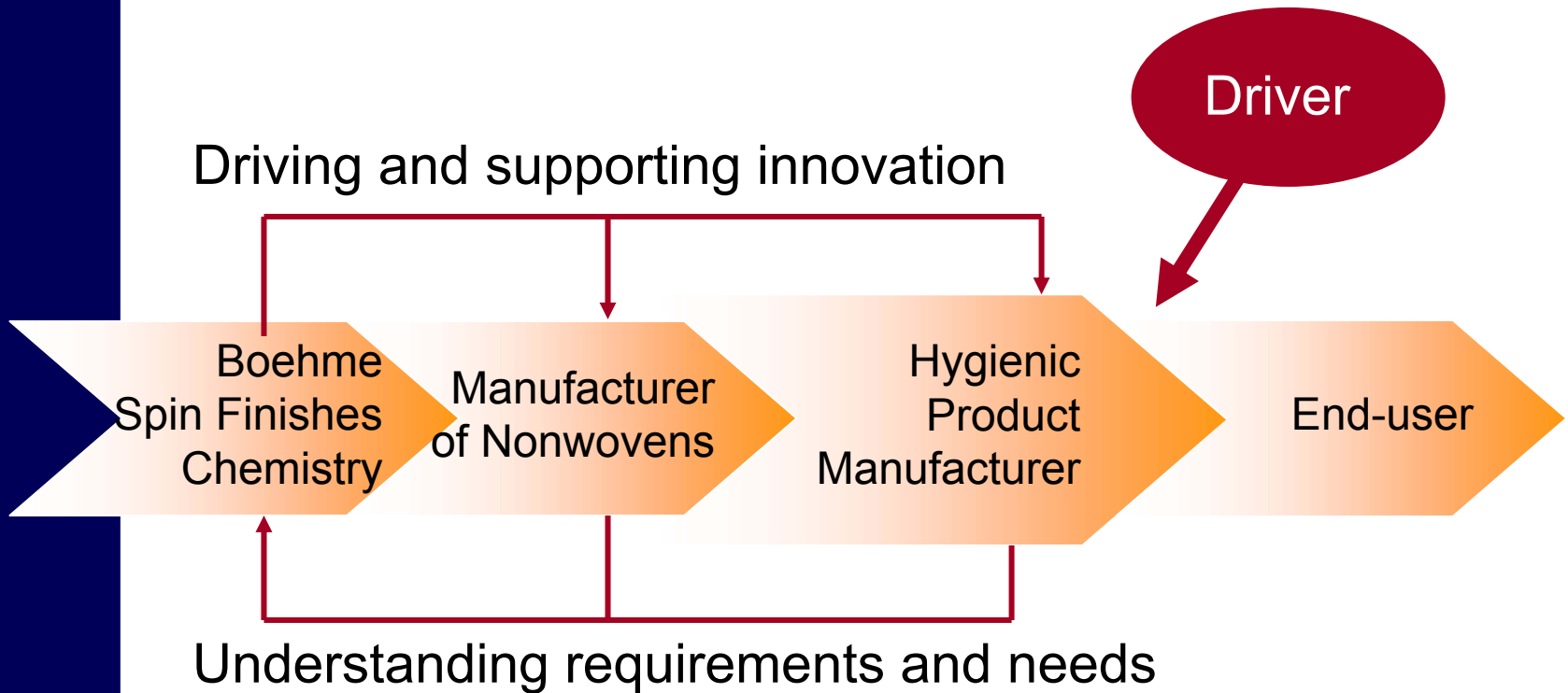
- **PP**
- **PES**
- **PA**
- **PAN**
- **CV**



Produktpalette für hydrophile Hygienevliese

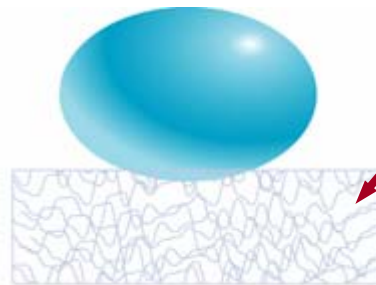


Wertschöpfungskette für Hygieneprodukte



Warum benötigen wir Spinnpräparationen?

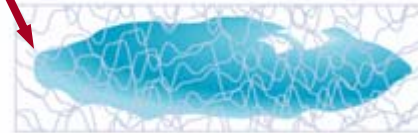
without spin-finish
no wetting



$t = \infty$ (evaporation)

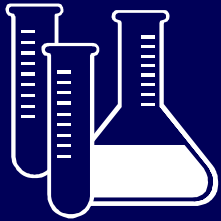
with Boehme Spin Finishes
prompt wetting

Nonwoven fabric



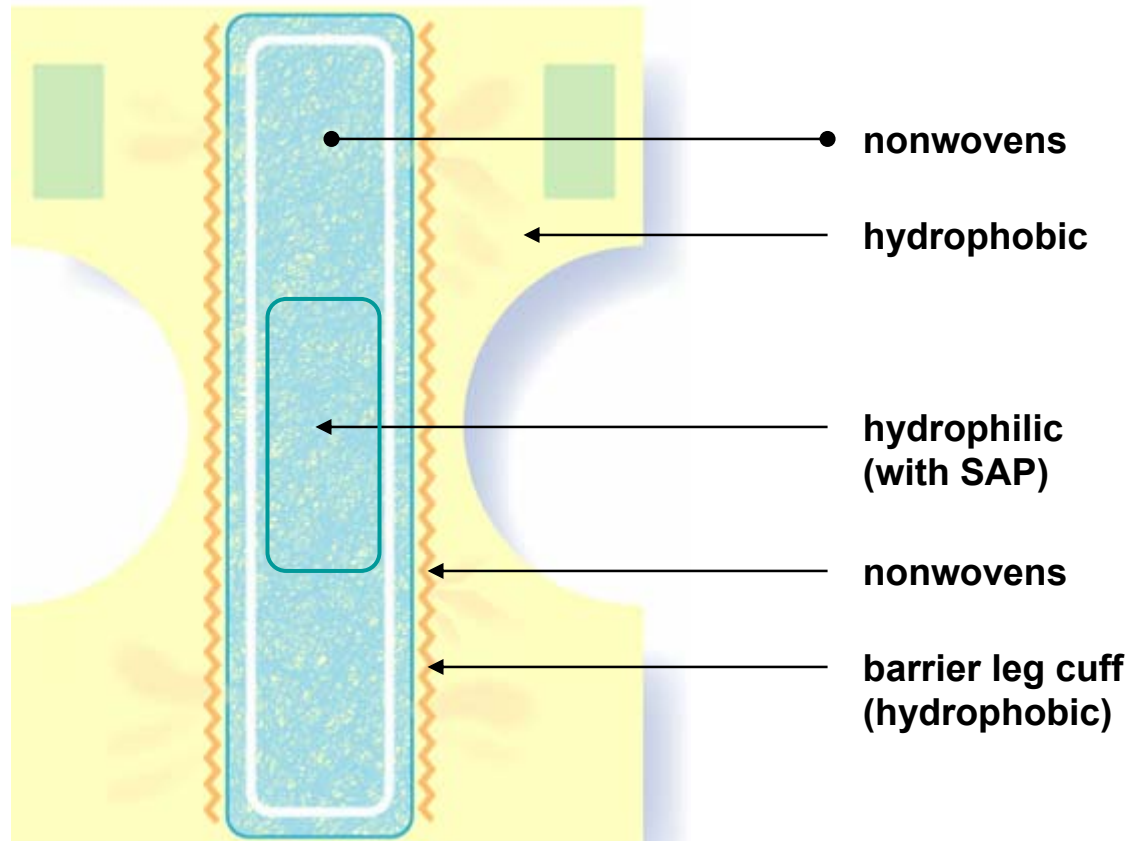
$t \ll 1$ sec

Boehme SYNTHESIN Spin Finishes provide superior wetting

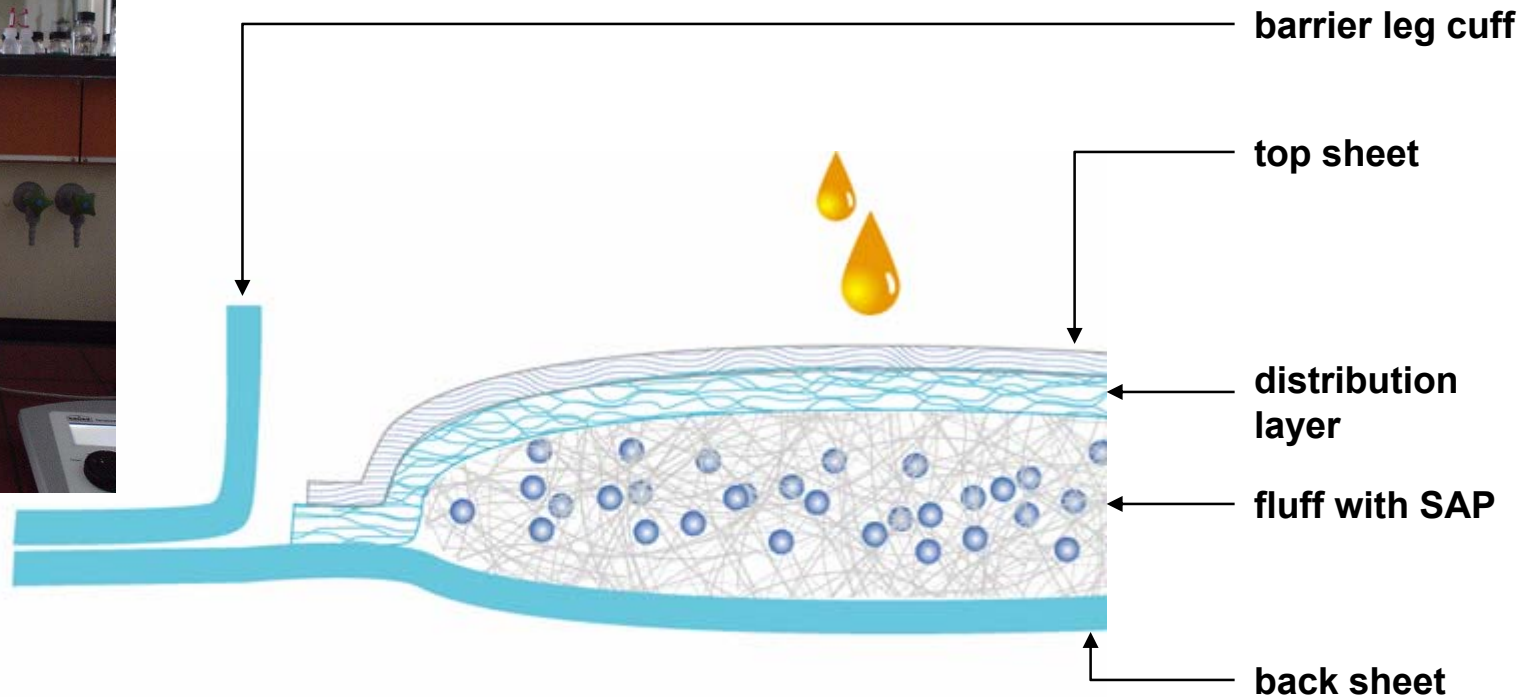


Wo benötigen wir **SYNTHESIS** Spinnpräparationen?

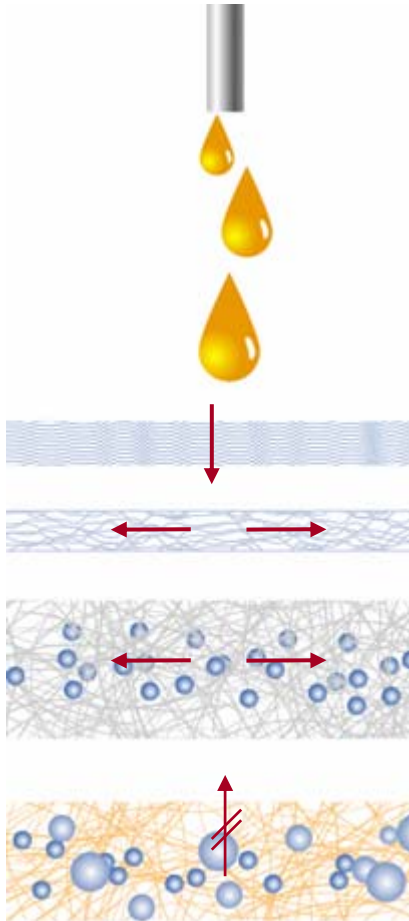
newest generation of diaper



Einsatz der hydrophilen **SYNTHESISIN** Spinnpräparationen!

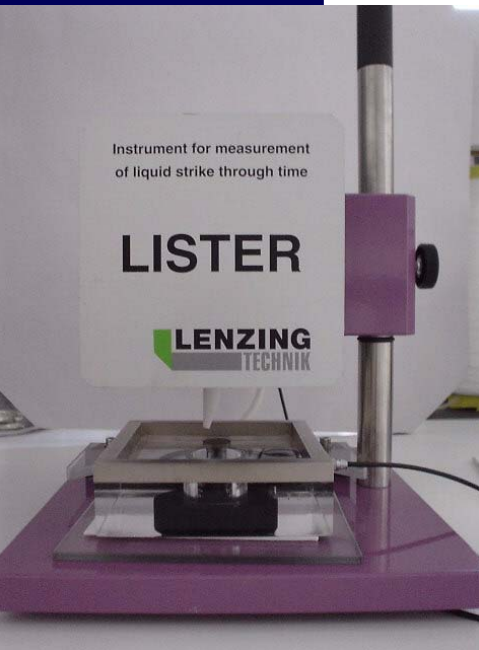


SYNTHESIS Chemie in Hygieneprodukten

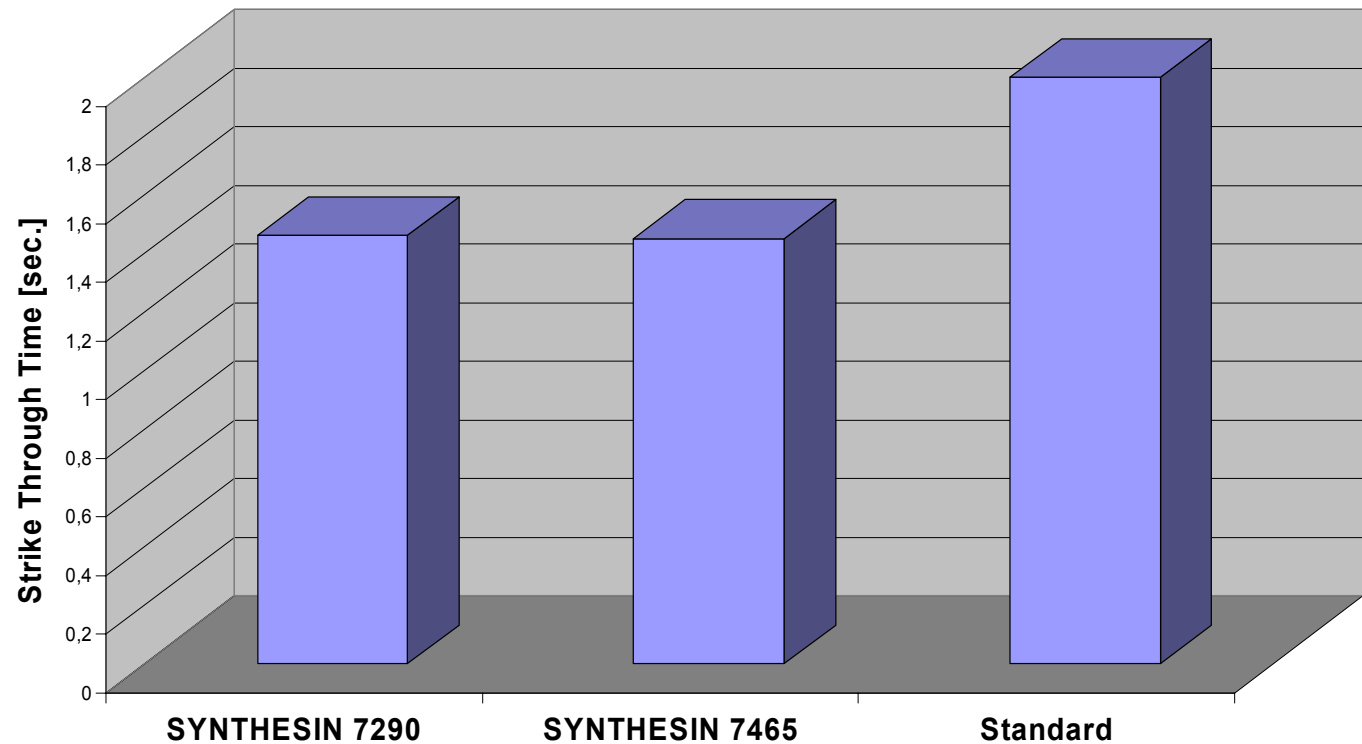


Basic processes	Criteria
Source of liquid	type, composition, surface tension
Liquid delivery	volume rate, kinetics
Transport through ...	velocity, retardation
Distribution in nonwovens	vertical, lateral flow, fluid dynamics
Absorption of liquid	capacity, wetting, break-through
Retention of liquid	re-wetting, equilibrium, conditions

Hydrophilie von **SYNTHESIN** Spinnpräparationen

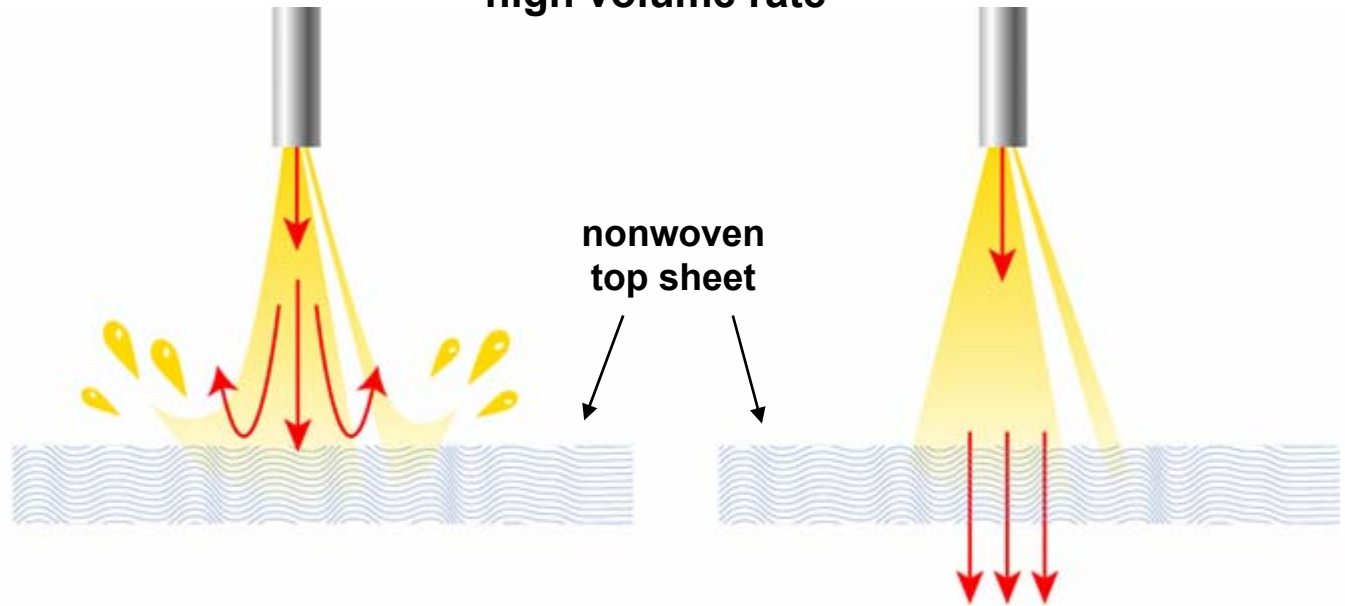


Strike Through Times



Boehme *SYNTHESIN* in Deckvliesen

high volume rate



standard spin finish

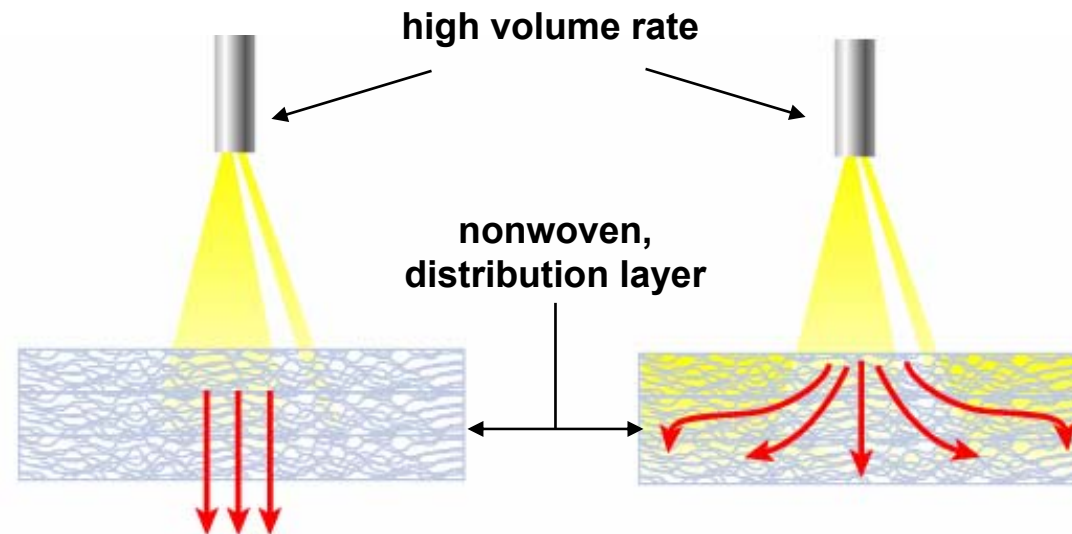
- slow wetting
- penetration hinderance
- push back

applied with SYNTHESIN

- easy wetting
- fast transport
- optimal guidance for liquid

Boehme SYNTHESIN for superior transport through sheet

Boehme **SYNTHESIN** in der Verteilerschicht



standard spin finish

- slow dissolving kinetics
- fast break-through

applied with SYNTHESIN

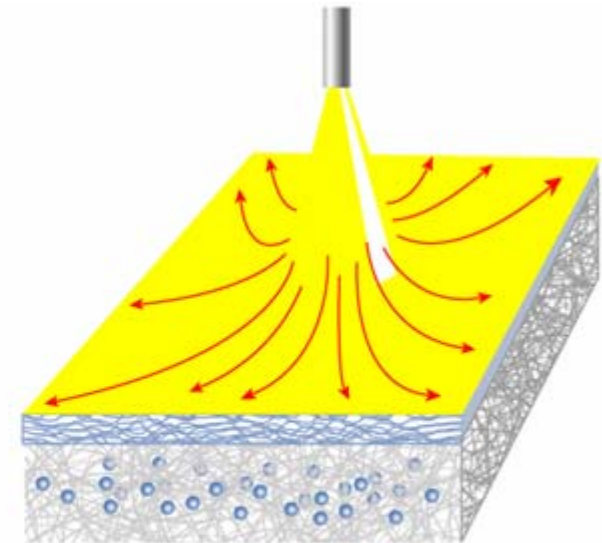
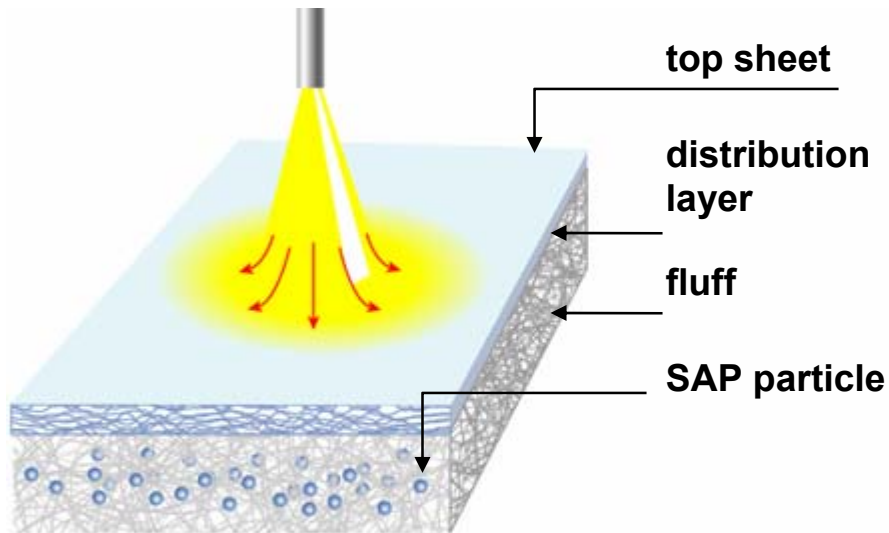
- fast dissolving kinetics
- retarded break through

Boehme hydrophilic SYNTHESIN for better lateral liquid in distribution layer!

Boehme *SYNTHESIN* und die Aufnahmekapazität von Superabsorbent

standard hydrophiles

SYNTHESIN spin finish



limited flow distribution

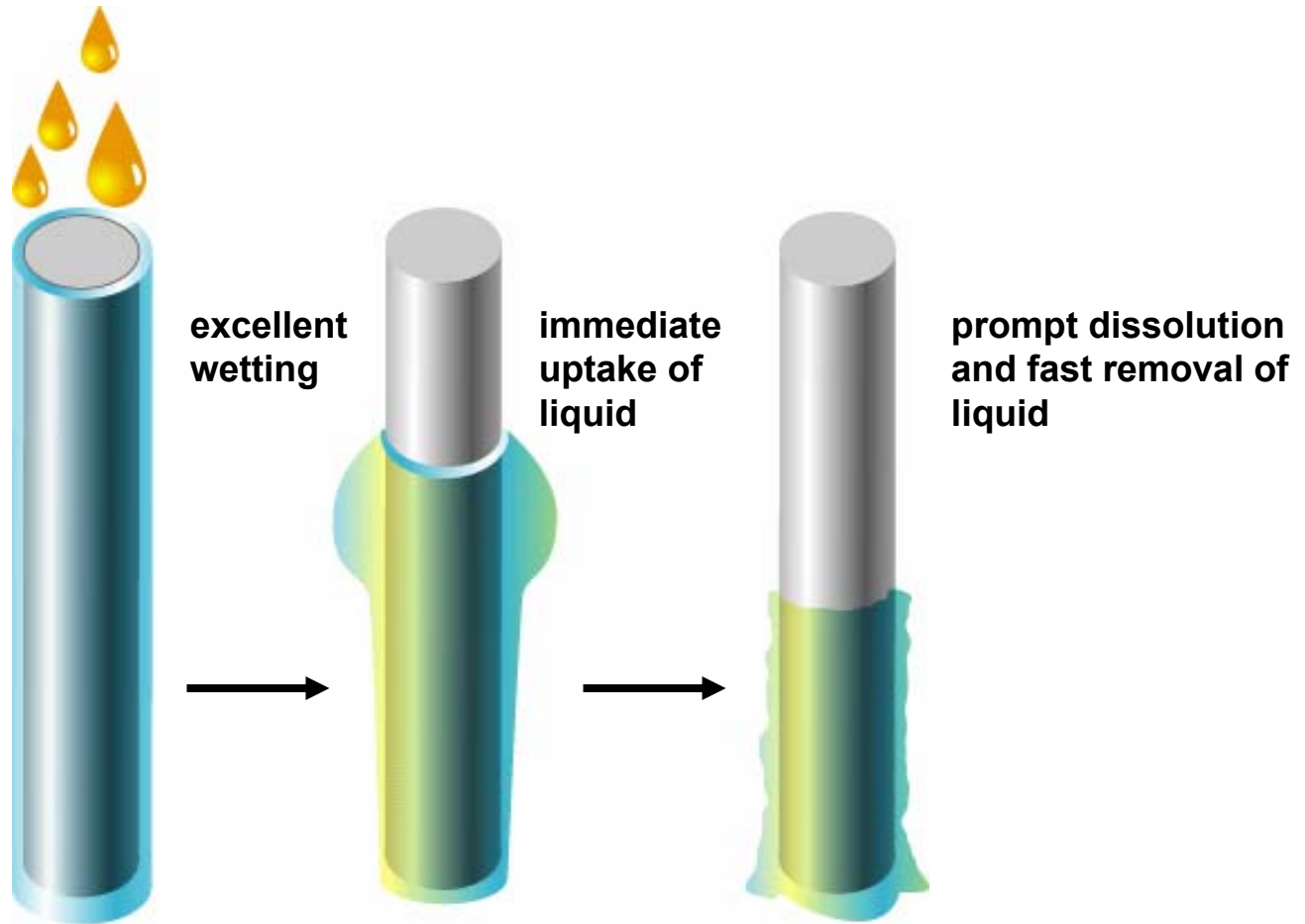
- limited uptake
- limited SAP capacity

perfekt kinetics and distribution

- maximum uptake
- maximum capacity of SAP

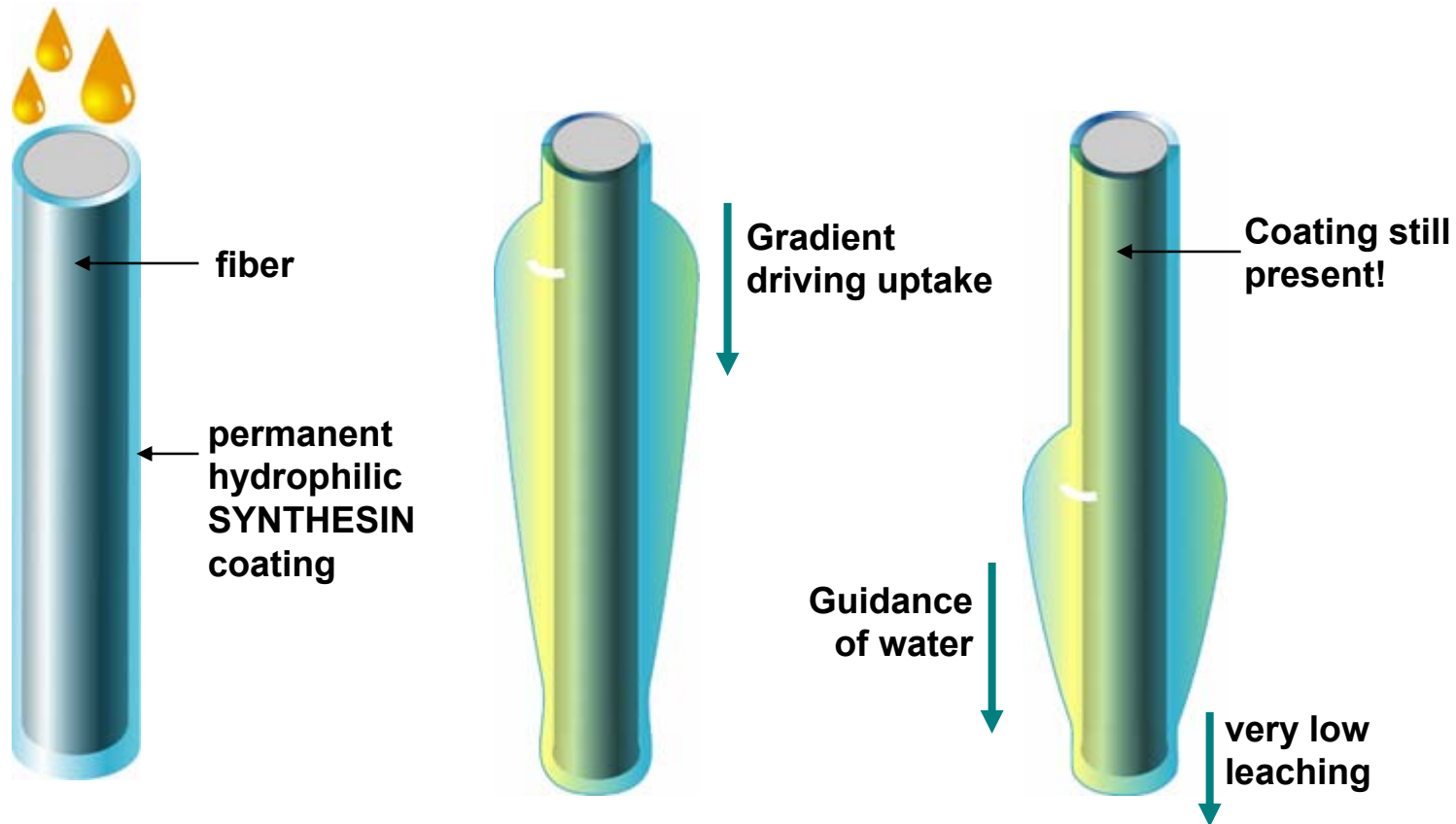
SYNTHESIN enhance exploitation of SAPs

Klassische hydrophile Boehme Spinnpräparationen



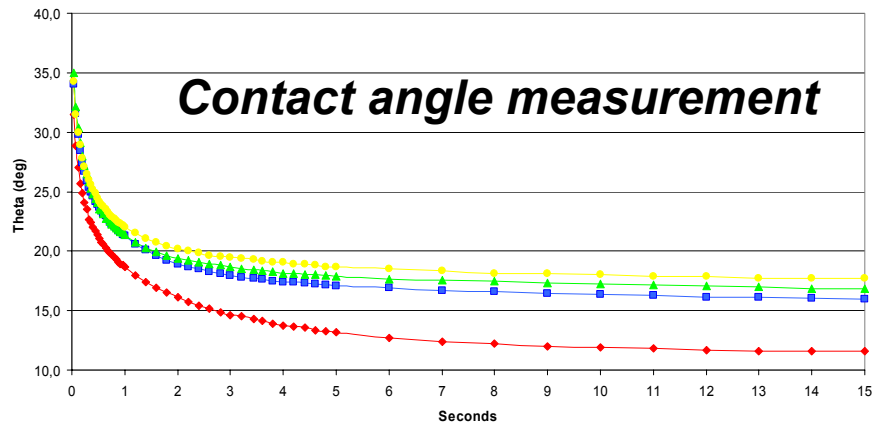
Boehme "Classics" are state-of-the-art technology

Permanent hydrophile Boehme SYNTHESIN Präparationen



Boehme provides tailored formulations for superior permanent hydrophilic coatings

Affinität von hydrophilem SYNTHESIN



PP-film

Standard spinnfinish

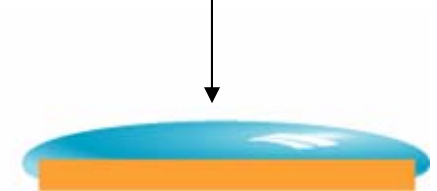
Boehme SYNTHESIN SB 65



no affinity

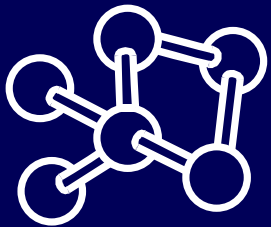


better affinity

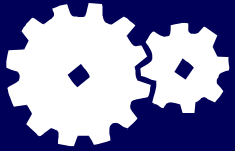


perfect affinity

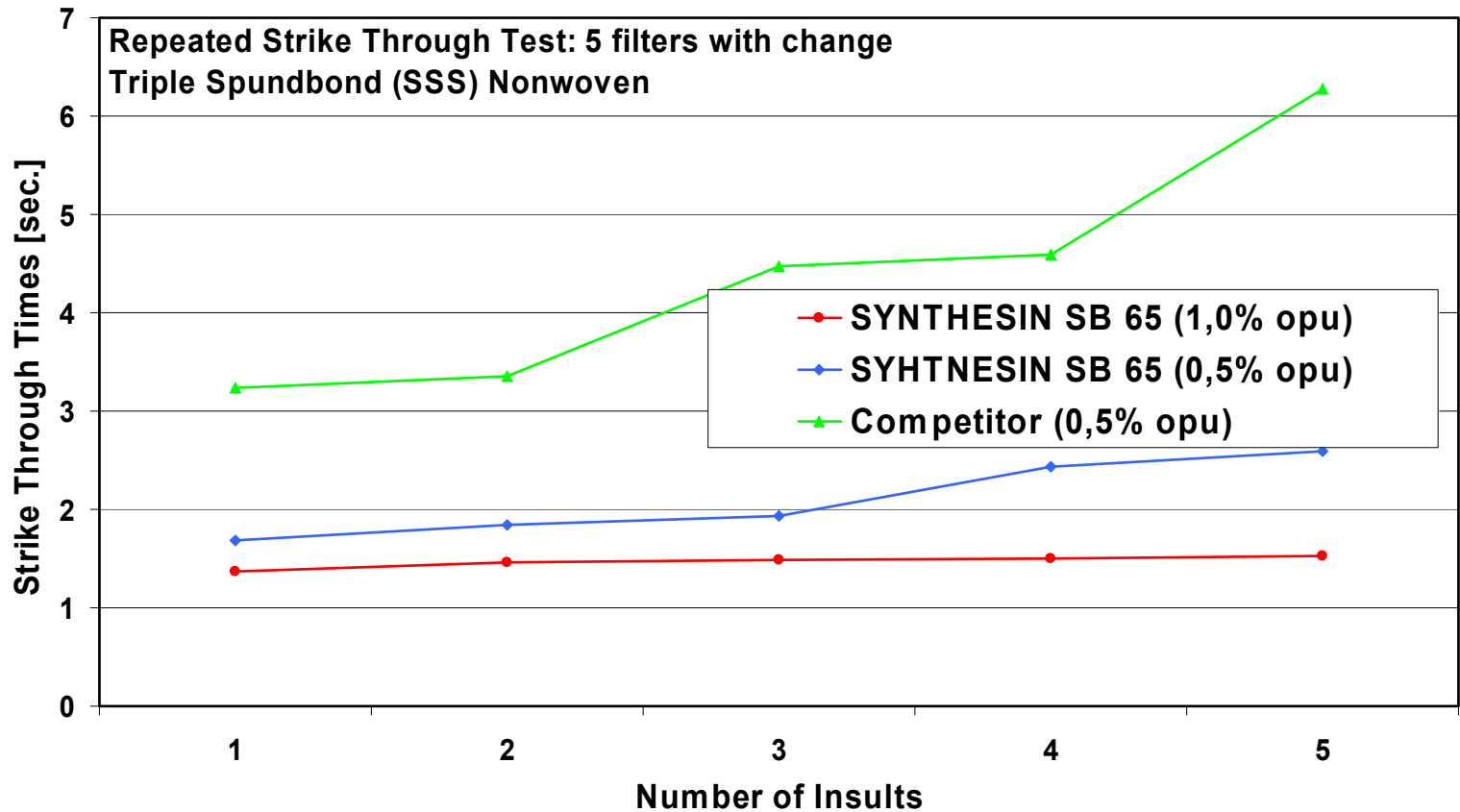
Boehme SYNTHESINs are perfectly adapted to fiber polymers



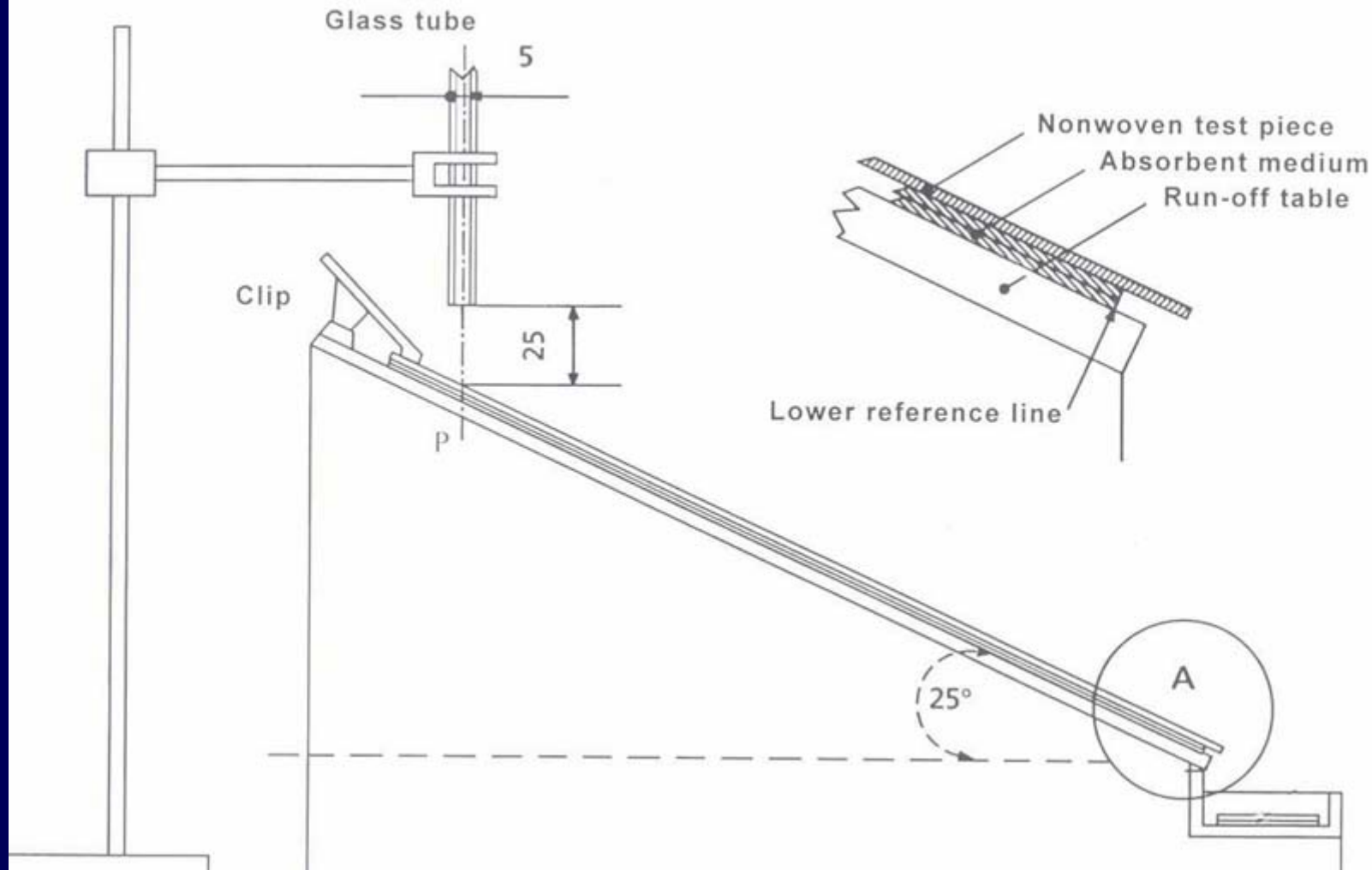
Reifenhaeuser Spinnvliesanlage



Permanent hydrophile Performance von **SYNTHESIN SB 65**



Messung des Run Off



Run off mit hydrophiler Spinnpräparation



Run off mit SYNTHESEN SB 65



Run off Ergebnisse

**Standard
spin
finish**

12 cm



Conditions:

45° angle

**1 drop from 1 cm
distance**

3 cm



SYNTHESIN SB 65



20 drop test – hydrophile Spinnpräparation mit schlechter Performance



20 drop test - Performance mit SYNTHESIN SB 65

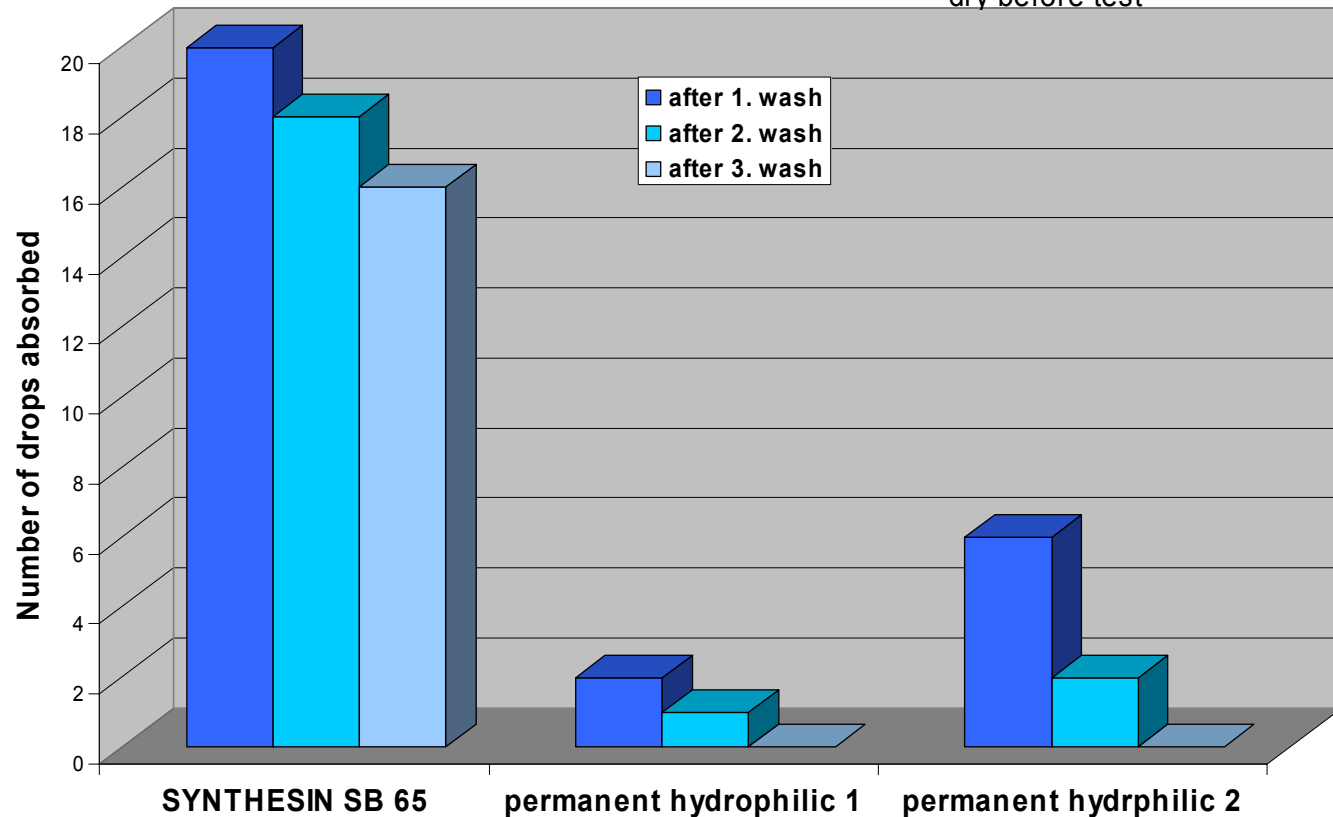


Permanent Hydrophile Performance von **SYNTHESIN SB 65**



20 drop test

wash in demineralised water for one minute, then dry before test



Kundennutzen von Boehme permanent hydrophilen SYNTHESIN Spinnpräparationen



- Tailor made formulations – „safe“ chemistry
- Excellent hydrophilicity
- Superior permanency
- Easy handling – liquid products
- High yield – 100% active content
- Stable formulations – free of silicones
- Applicabel by various systems (kiss roll, spray)
- High affinity to PP and PES

➔ SYNTHESIN - chemistry for highest comfort
in diapers and other hygienic products



Our experience – baby's added value!



Danke für Ihre Aufmerksamkeit!