



Chemie

HSH CHEMIE INNOVATIVE CENTER

DOMINIK KRAWCZYK

November 2024

HSH CHEMIE FACTS & FIGURES



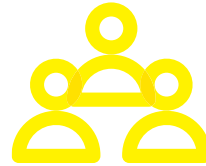
Founded in 1976



Active in more than 20 countries in CEE



Based in Hamburg, Germany



More than 300 employees



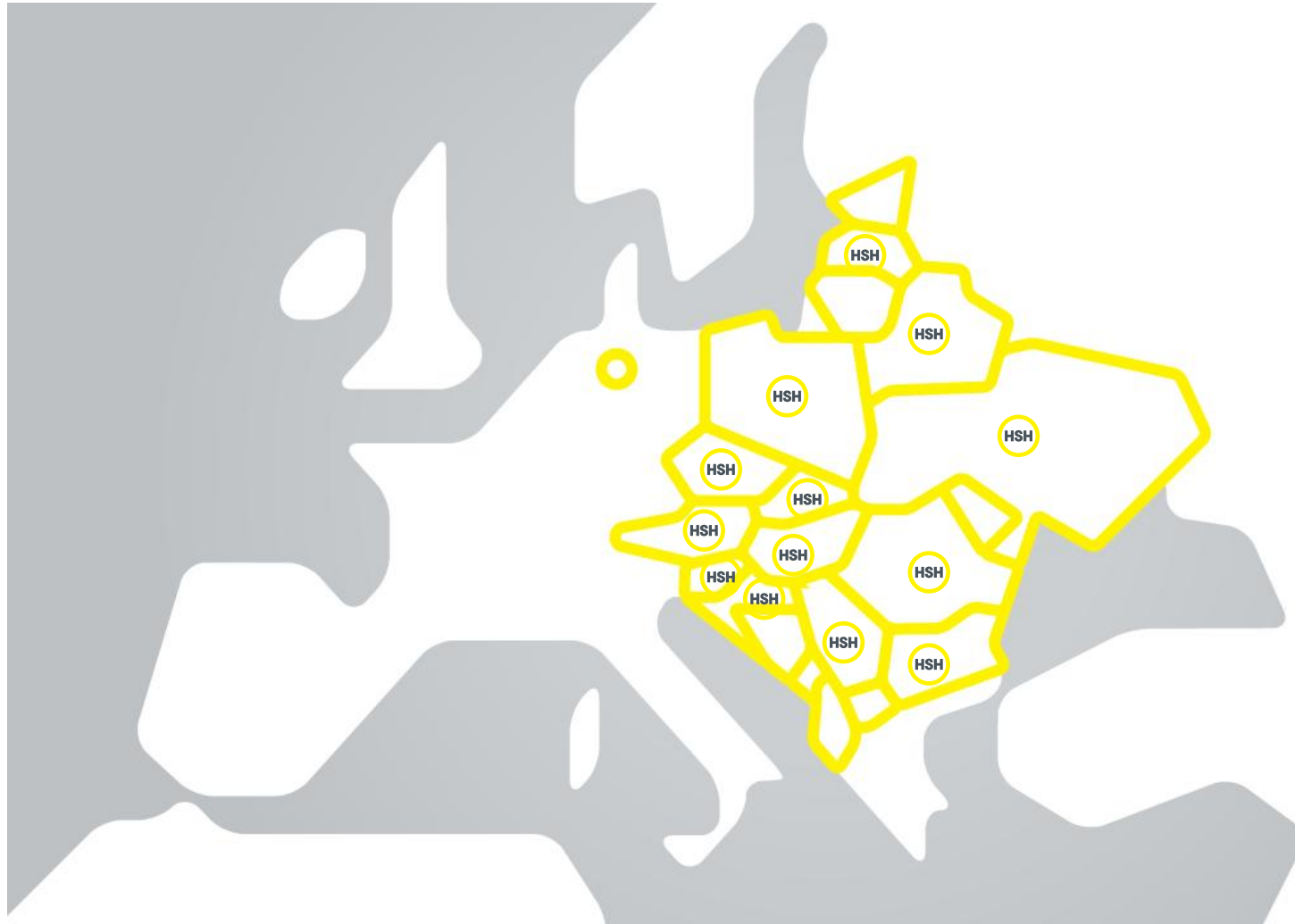
Family owned
100% - Rather GmbH



More than 30 independent warehouse
locations in CEE



HSH CHEMIE – WHERE WE ARE



- **Hamburg*** (Holding)
- Albania
- **Austria***
- **Belarus***
- Bosnia-Herzegovina
- **Bulgaria***
- **Croatia***
- **Czechia***
- Estonia
- **Hungary***
- Kosovo
- **Latvia***
- Lithuania
- Moldavia
- Montenegro
- North Macedonia
- **Poland***
- **Romania***
- **Serbia***
- **Slovakia***
- **Slovenia***
- **Ukraine***

* local office

HSH CHEMIE – MARKET LEADER IN CEE



No. 1
Chemical Distributor
in Central and Eastern
Europe

HSH CHEMIE

SALES FORCE IN CEE

80

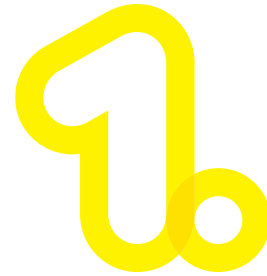
Supportive
Service Team

150

Technical
Sales
Managers

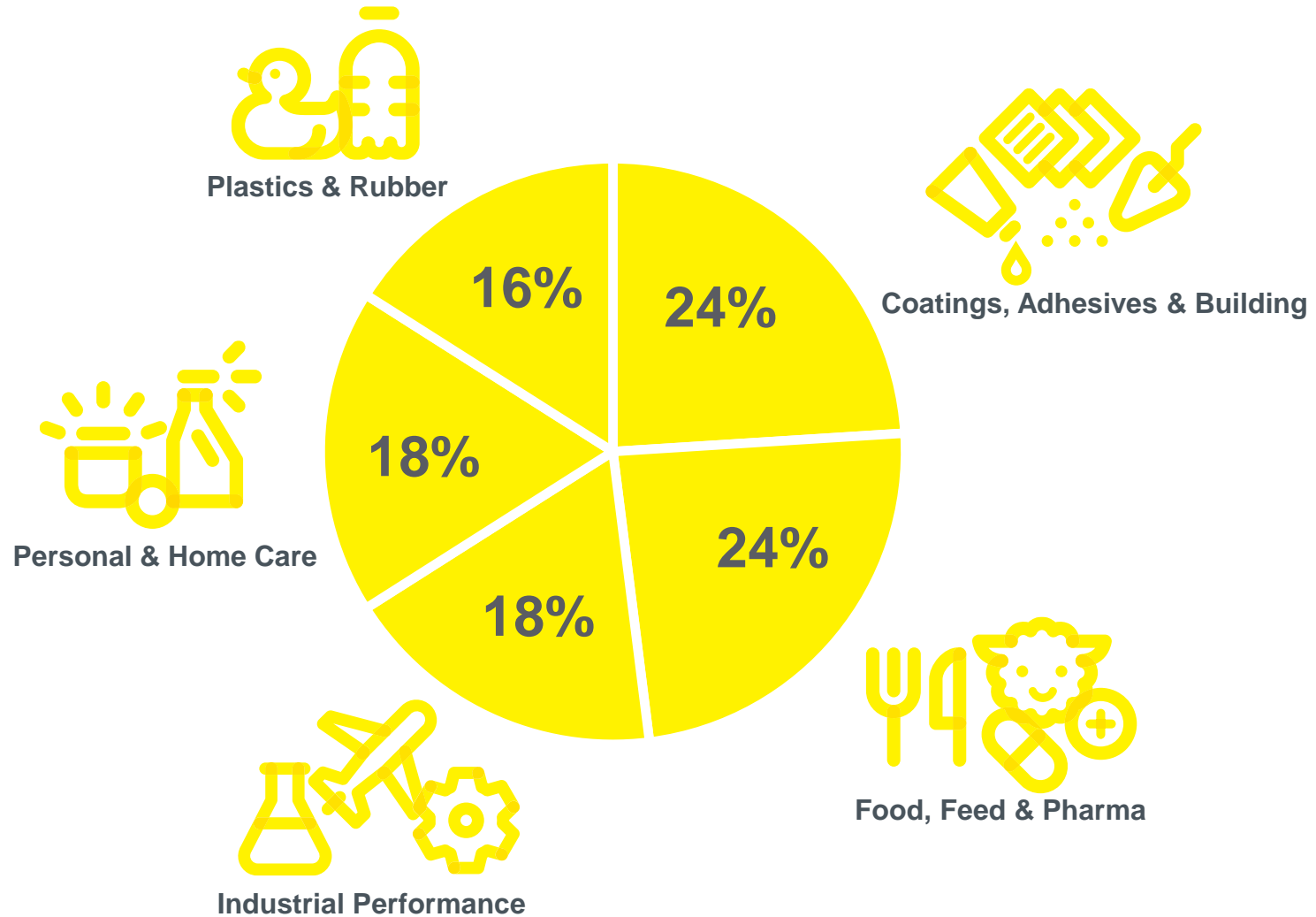
4000+

Customers
in over 20
different
countries



HSH CHEMIE

INDUSTRY FOCUS GROUPS - SALES DISTRIBUTION 2022



SUSTAINABILITY

MEMBERSHIP, INITIATIVES, IMPLEMENTED STANDARDS



- FECC
- EcoVadis Rating Certificate
- Responsible Care
- ISO 9001
- SQAS for Chemical Distributors - ESAD (Poland & Slovakia)

HSH CHEMIE – COMPLIANCE STANDARDS

HSH Chemie office	ISO 9001	ISO 14000	ISO 22000	ESAD assessment	HACCP	Responsible Care	EcoVadis	EKO	RSPO
Austria	✓	•	•	•	•	•	✓	•	•
Baltics	✓	•	•	•	✓ _{nc}	•	✓	•	•
Bulgaria	✓	•	•	•	✓ _{nc}	✓ national	✓	•	•
Croatia	✓	•	•	•	•	•	✓	✓	•
Czechia	✓	•	✓	•	✓ _{nc}	✓ national	✓	✓	✓
Hungary	✓	✓	•	•	✓	✓ national	✓	•	✓
Poland	✓	•	•	✓	✓ _{nc}	✓ FECC	✓	✓	✓
Romania	✓	•	•	•	✓ _{nc}	✓ national	✓	•	•
Serbia	✓	•	•	•	•	•	✓	•	•
Slovakia	✓	•	•	•	✓ _{nc}	•	✓	✓	•
Slovenia	✓	•	•	•	✓ _{nc}	•	✓	✓	✓

✓ - implemented, certified
✓_{nc} - implemented, not certified
• - not available / not applicable
+ - planned to be implemented

HSH CHEMIE INNOVATIVE CENTER

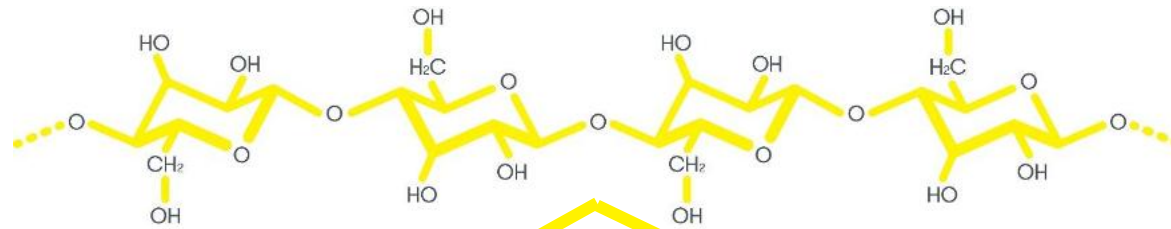




CELLOQ®

CELLULOSE ETHER

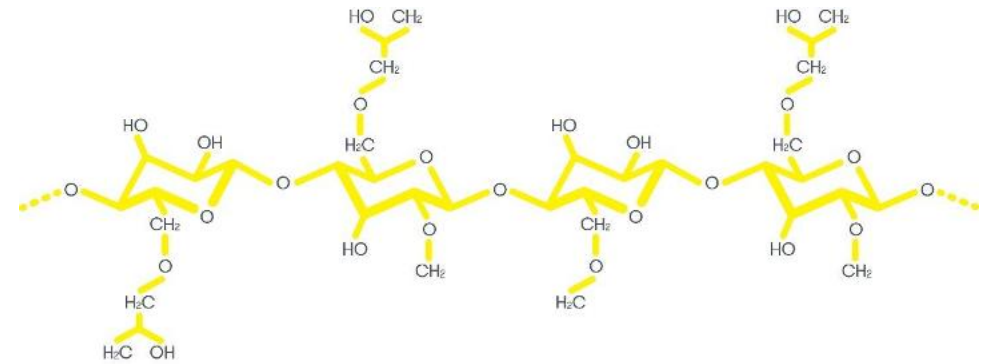
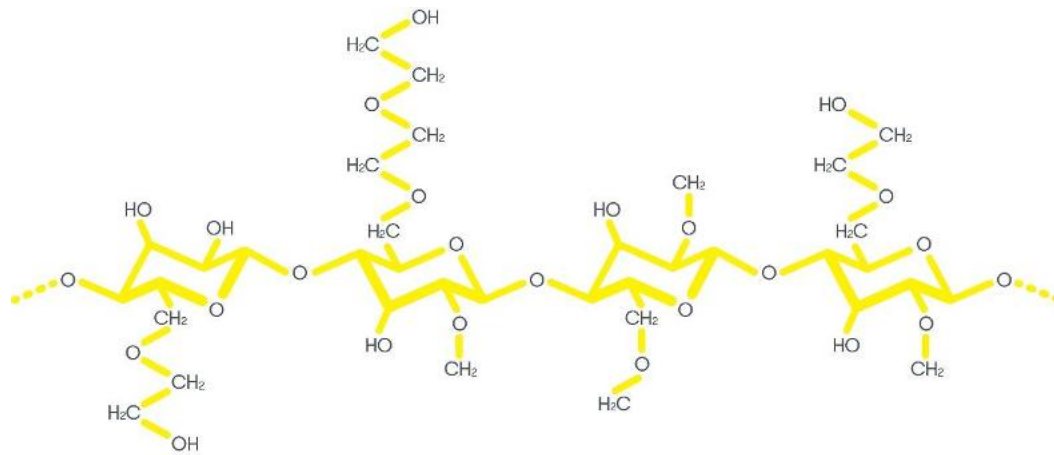
Cellulose



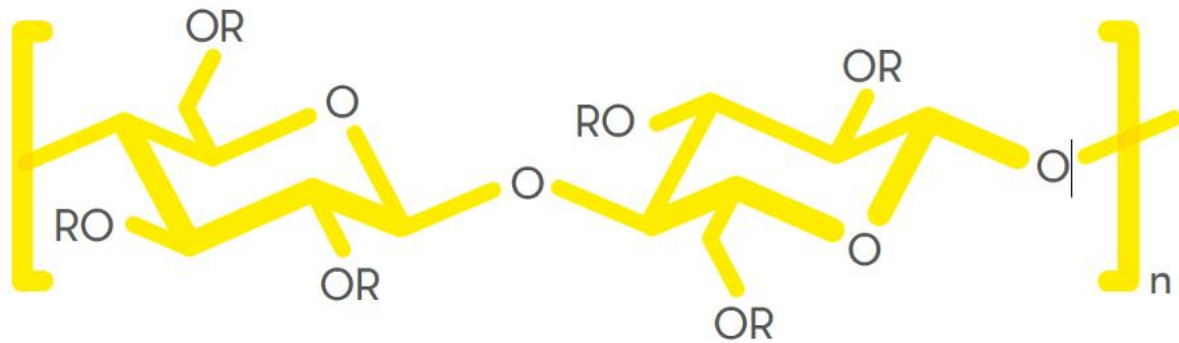
Methyl Chloride

Methyl Chloride

Ethylene Oxide Propylene Oxide



ETERYFICATION



MC

R=-CH₃

HPMC

R=-CH₂ CHO₂HCH₃
R=-CH₃

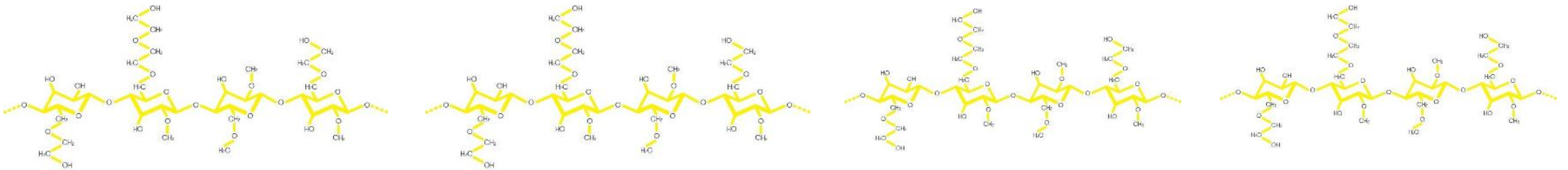
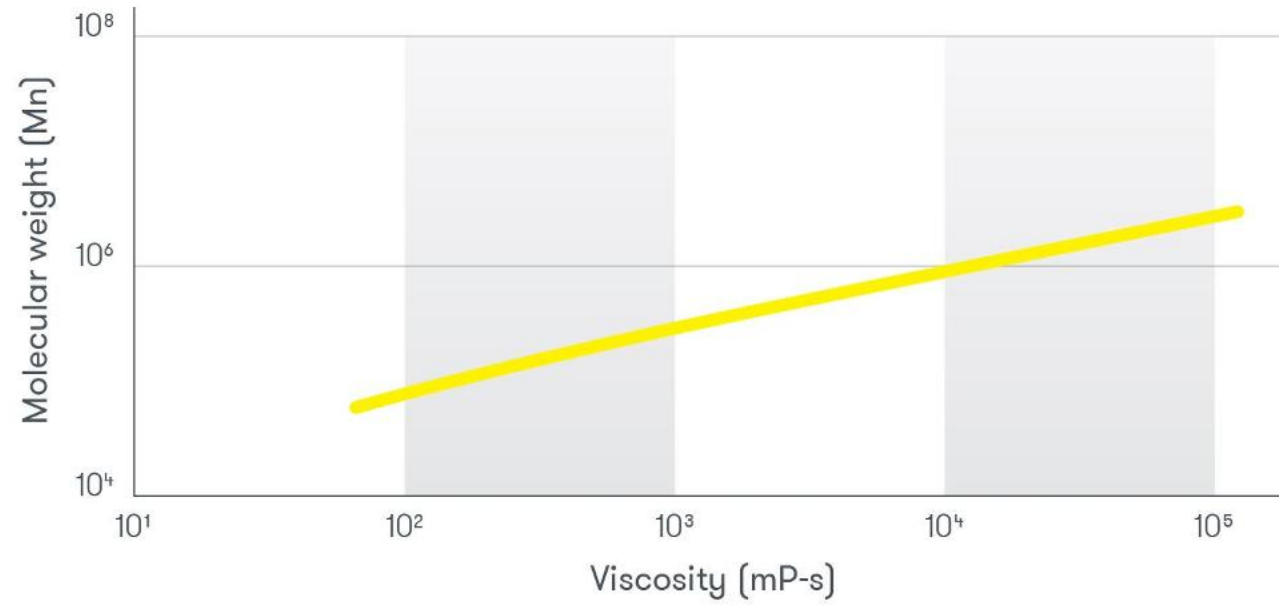
HEMC

R=-CH₂ CH₂OH
R=-CH₃

DS - Degree of Substitution
Average methoxy groups (18-24%)

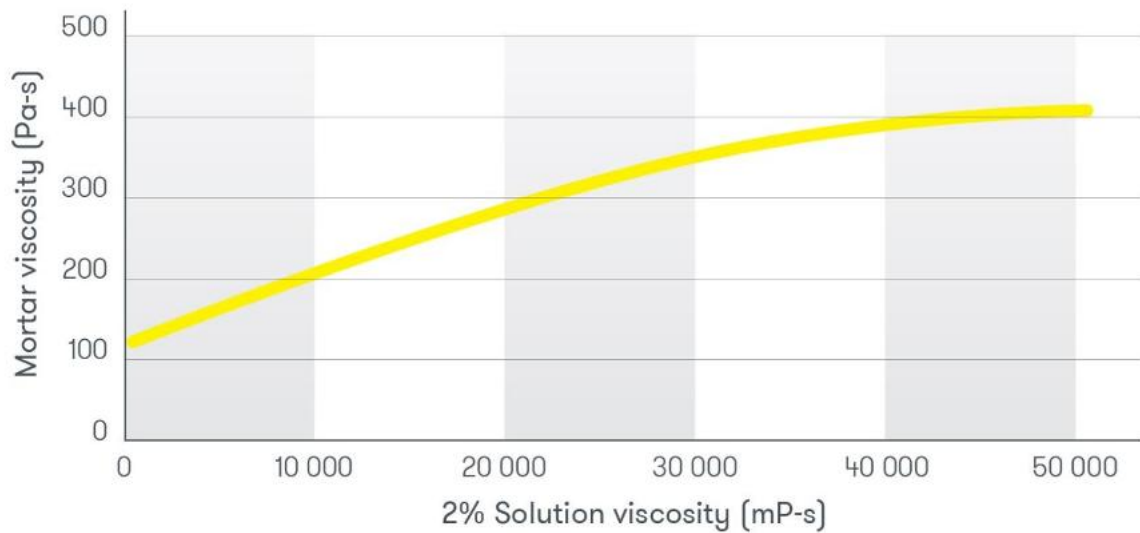
MS - Molar Substitution
Average hydroxy popoxy/etoxy groups (4-12%)

VISCOSITY



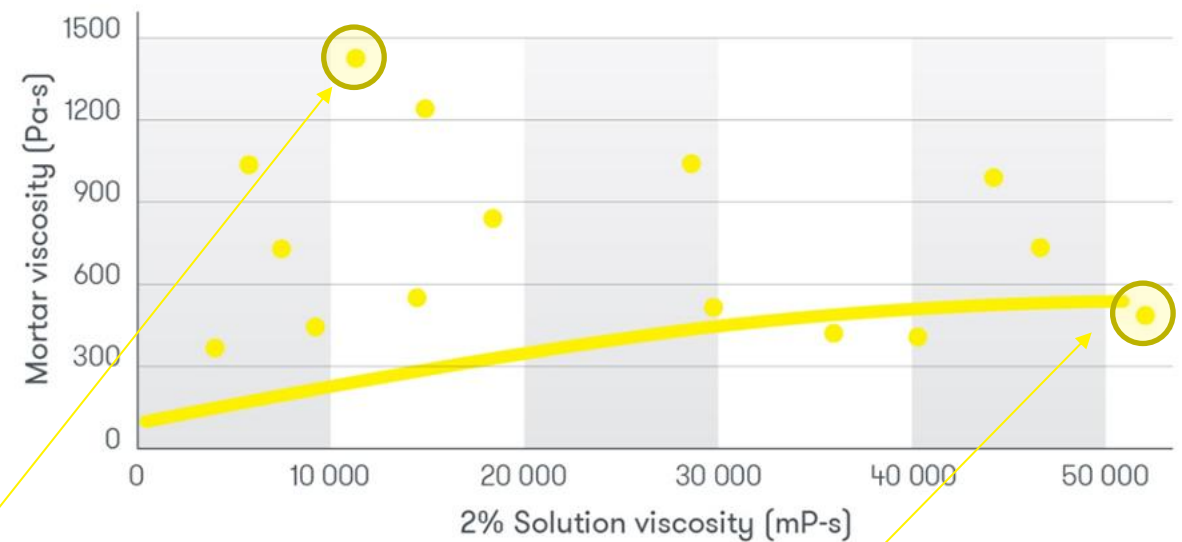
RELATION OF THICKENER VISCOSITY TO THE MORTAR VISOSITY

Plain ethers



CELLQ 6030 – 12.000 mPa•s – high flocculationv- high mortar viscosity, delay of cement hydration

Modified ethers



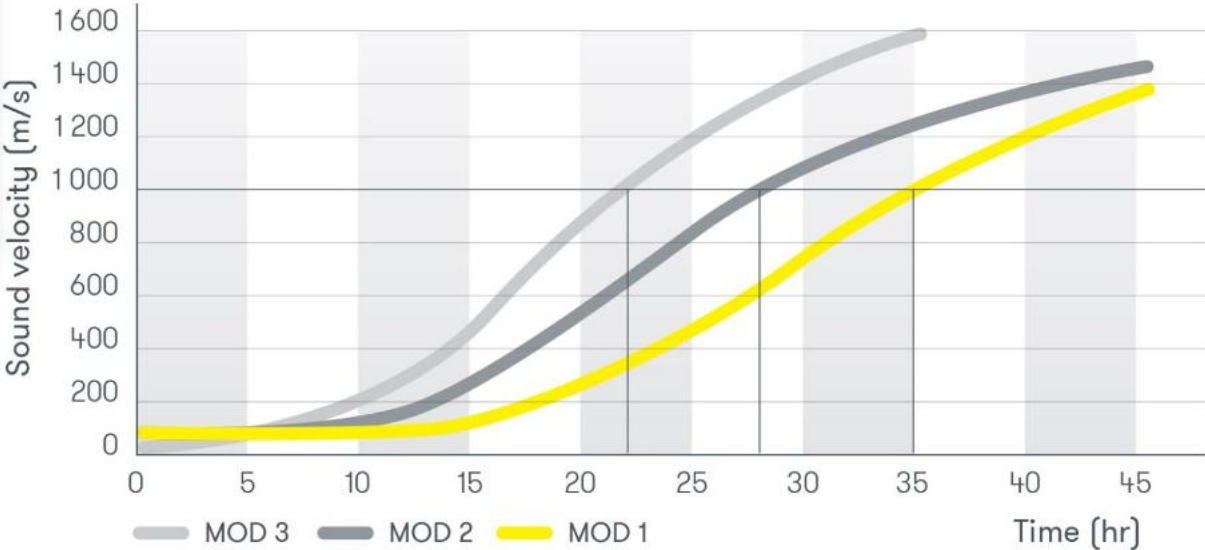
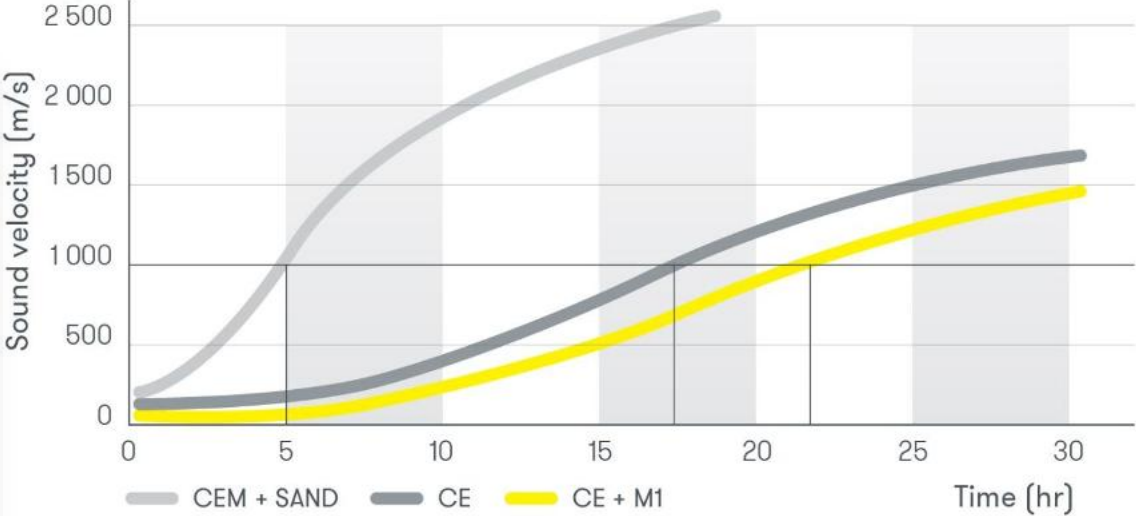
CELLQ 1212 – 55.000 mPa•s – no flocculation, thickening mechanism only by volume, increased water retention

PERFORMANCE AND APPLICATION

- Target viscosity in the whole range
- Cement / fillers flocculation
- Less / higher density of the mortar
- Wettability of fillers
- Reduced or eliminate sagging
- High tixotropic index / low tixotropic index
- Extended or reduced open time and / or setting time

- ETICS
- CMP
- CTA
- MORTARS
- GMP
- PUTTY

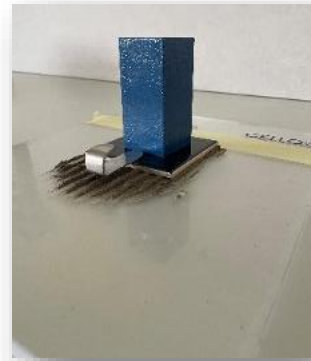
INFLUANCE ON HYDRATION PROCESS



INFLUANCE ON THICKENING EFFICIENCY



INFLUANCE ON SAG RESISTANCE



INTERNAL METHOD OF HSH

THE KIT CONTEINS:

- STAND
- TILE WITH HOOK
- EXTRA WEIGHT TO HANG

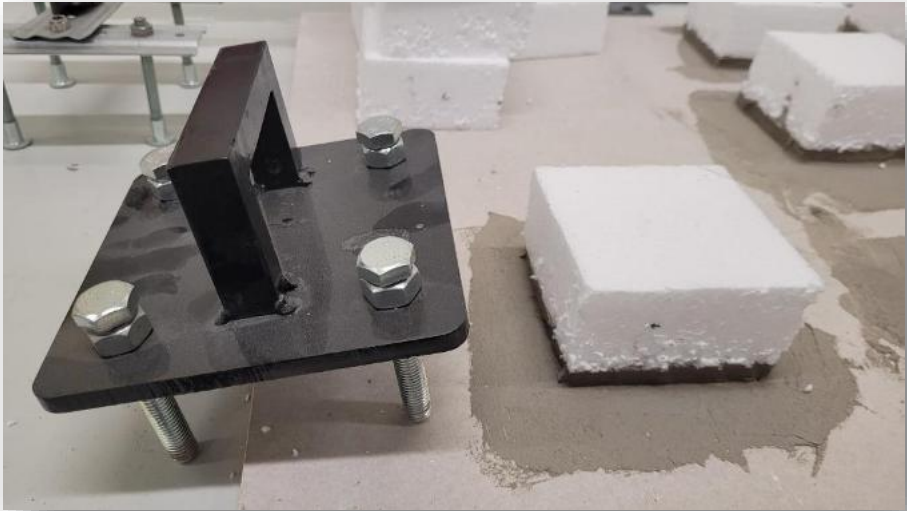


ADHESION UNDER DIFFERENT CONDITIONS



PN-EN 12004

ETICS – ADHESION TO EPS



CELLQ® 26009

CELLQ 26009 is a slightly modified, medium viscosity Hydroxypropyl Methylcellulose invented as universal product for general application. CELLQ 26009 provides very good performance as a water retention agent with superior creaminess development.

Cellulose ether CELLQ 26009 gives the mortar nice, fast consistency development, a very good open time with a reduced tools stickiness and long open time.

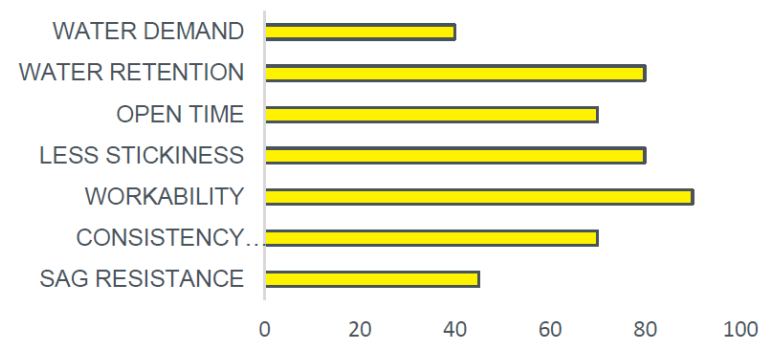
Even at higher temperature CELLQ 26009 shows very good water retention due to medium length of the cellulosic chain and a special type of modification to enhance water retention.

It is useful for all types of the mortars especially mineral plasters and putties where other additives such as starch ethers are added. CELLQ 26009 will help to achieve extra homogeneity in ultra short time of mixing.

MAIN APPLICATIONS

- Cement Grout
- Cement Machine Plaster
- Mineral Putty
- Masonry Mortar

CELLQ 26009 PERFORMANCE



CELLQ® 60305

CELLQ 60305 is a modified, high quality cellulose ether (HydroxyPropyl MethylCellulose) invented for high class tile adhesive (CTA) especially high quality with best performance as C2 class with reduced sagging.

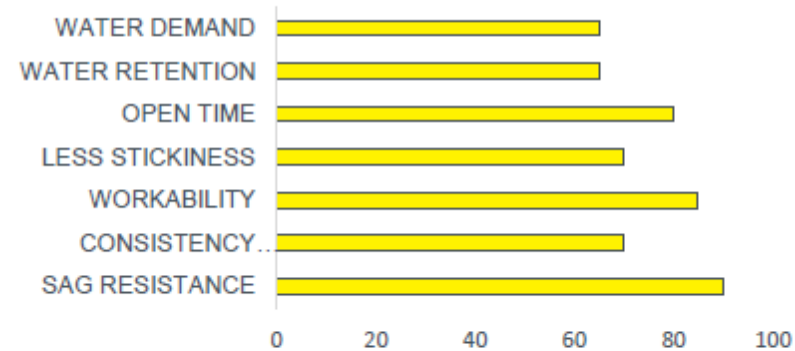
Due to the special modification cellulose ether CELLQ 60305 does not only reduce surface tension as HPMC does, but works as 1st type dispersing agent to enhance wettability of any type of fine, hydrophilic fillers such as carbonates or dolomites, gives the mortar fast consistency development, reduce the stickiness and prolongs the open time .

Even at higher temperature CELLQ 60305 shows good water retention and finally cohesion of the mortar shows high value.

MAIN APPLICATIONS

- High performance Tile Adhesive
- Putties
- Plasters

CELLQ PERFORMANCE



CELLQ® 11024

CELLQ 11024 is a strongly modified, high quality cellulose ether (HydroxyPropyl MethylCellulose) invented for tile adhesive (CTA) especially high quality with best performance as C2 for composite, green cement CEM II such as AV or LL (and others). CELLQ 11024 provides excellent performance as sag resistance, long open time and very nice, smoothly workability, with ultra-light influence on cement hydration.

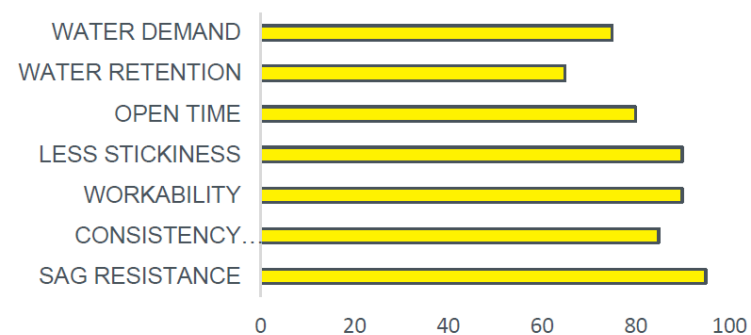
Due to the special modification cellulose ether **CELLQ 11024** gives the tile adhesive quite fast consistency development with **24hrs** possibility to walk on the surface.

Even at higher temperature CELLQ 11024 shows good water retention as a unique water management which provides to the fact that cohesion of the mortar shows high value.

MAIN APPLICATIONS

- High performance Tile Adhesive
- Thin mortars
- Cement Plasters

CELLQ PERFORMANCE



Chemical base:
Viscosity:
Particle size:
Moisture content:

Cellulose ether derivate (HPMC)
Approximately 5.000-14.000 mps
Fine powder
Max 8%

POLAND
ROMANIA
CZECHIA
CROATIA
HUNGARY
SLOVENIA
LATVIA
ESTONIA
SERBIA
UKRAINE
BULGARIA
KOSOVO
SLOVAKIA
ALBANIA
TURKEY
MACEDONIA

PORTUGAL
BOSNIA
AND
HERZEGOVINA
LITHUANIA
MONTENEGRO
GREECE
SPAIN
GERMANY
AUSTRIA
IRELAND
FRANCE
MEXICO



CELLQ®



Chemie

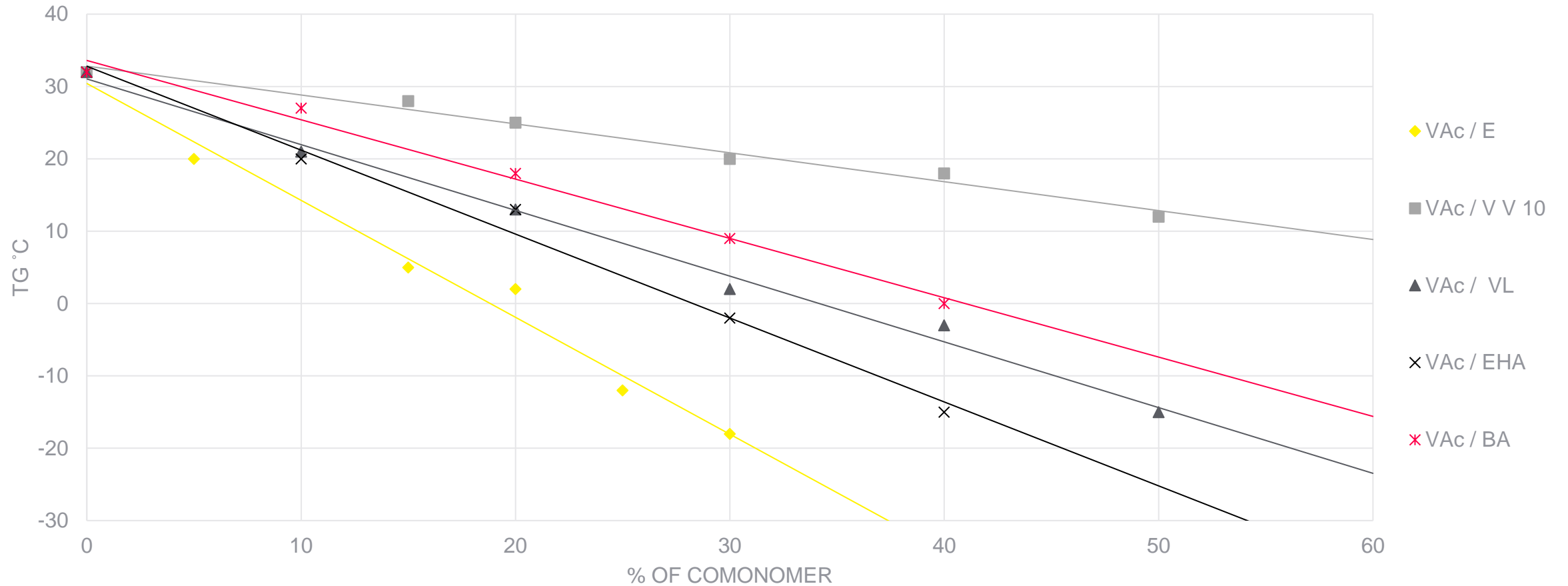
VEOVAQ®

REDISPERSIBLE
POLYMER
POWDER



RDP COMPOSITION WITH DIFFERENT MONOMERS

TG WITH DIFFERENT COMONOMERS



Glass Transition Temperature (TG)

TG INFLUENCE ON:

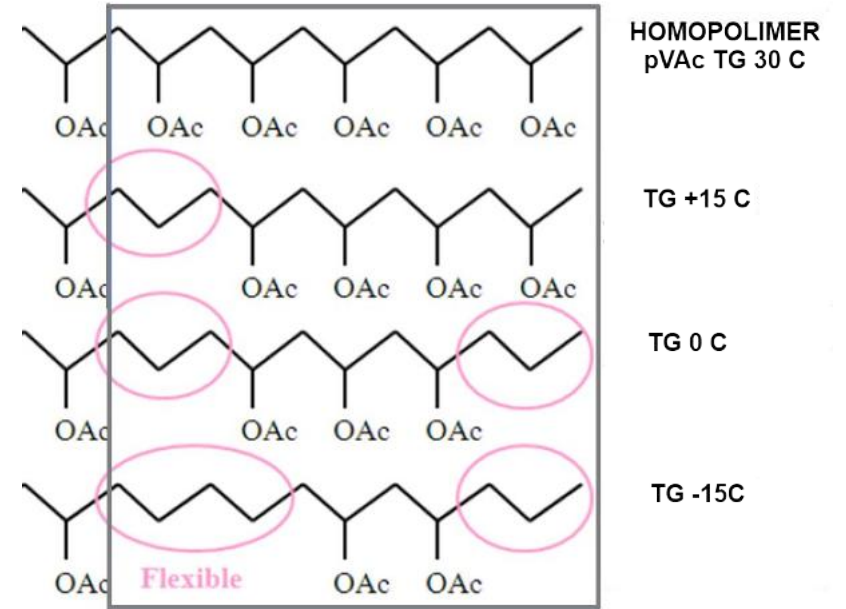
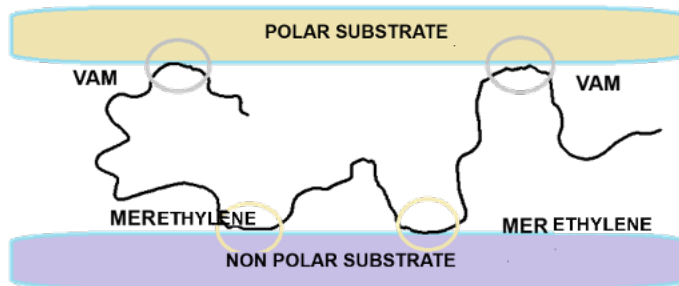
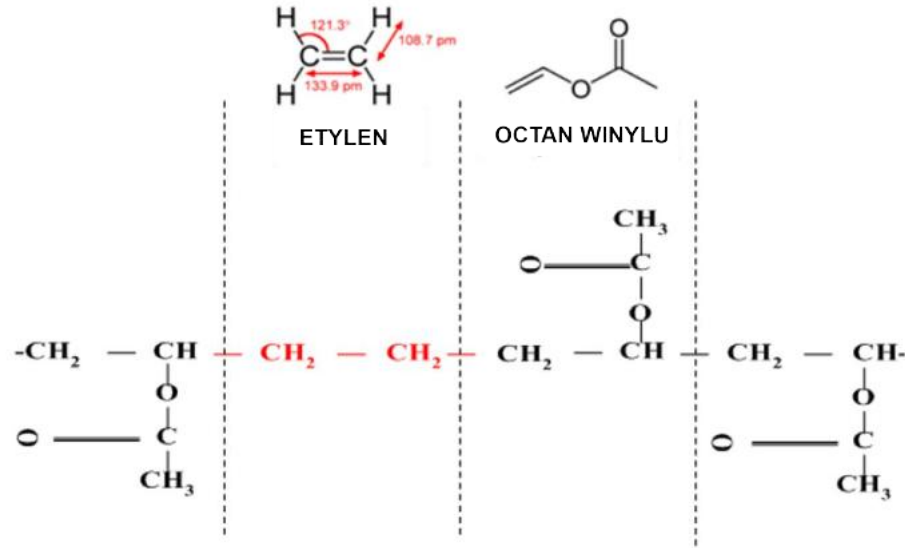
- Adhesion
- Cohesion
- Elasticity
- Leveling
- Viscosity
- Stickness
- Impact Resistance
- Hardness

Hard Monomer	Tg(°C)
Methyl Methacrylate	105
Vinyl Acetate	30
Acrylonitrile	103
Styrene	100
Vinyl Chloride	80
Vinylidene Chloride	70

Soft Monomer	Tg(°C)
Ethyl Acrylate	-24
n-butyl Acrylate	-57
2-ethylhexyl Acrylate	-50
Butyl Methacrylate	20
Butadiene	-77
Ethylene	-80

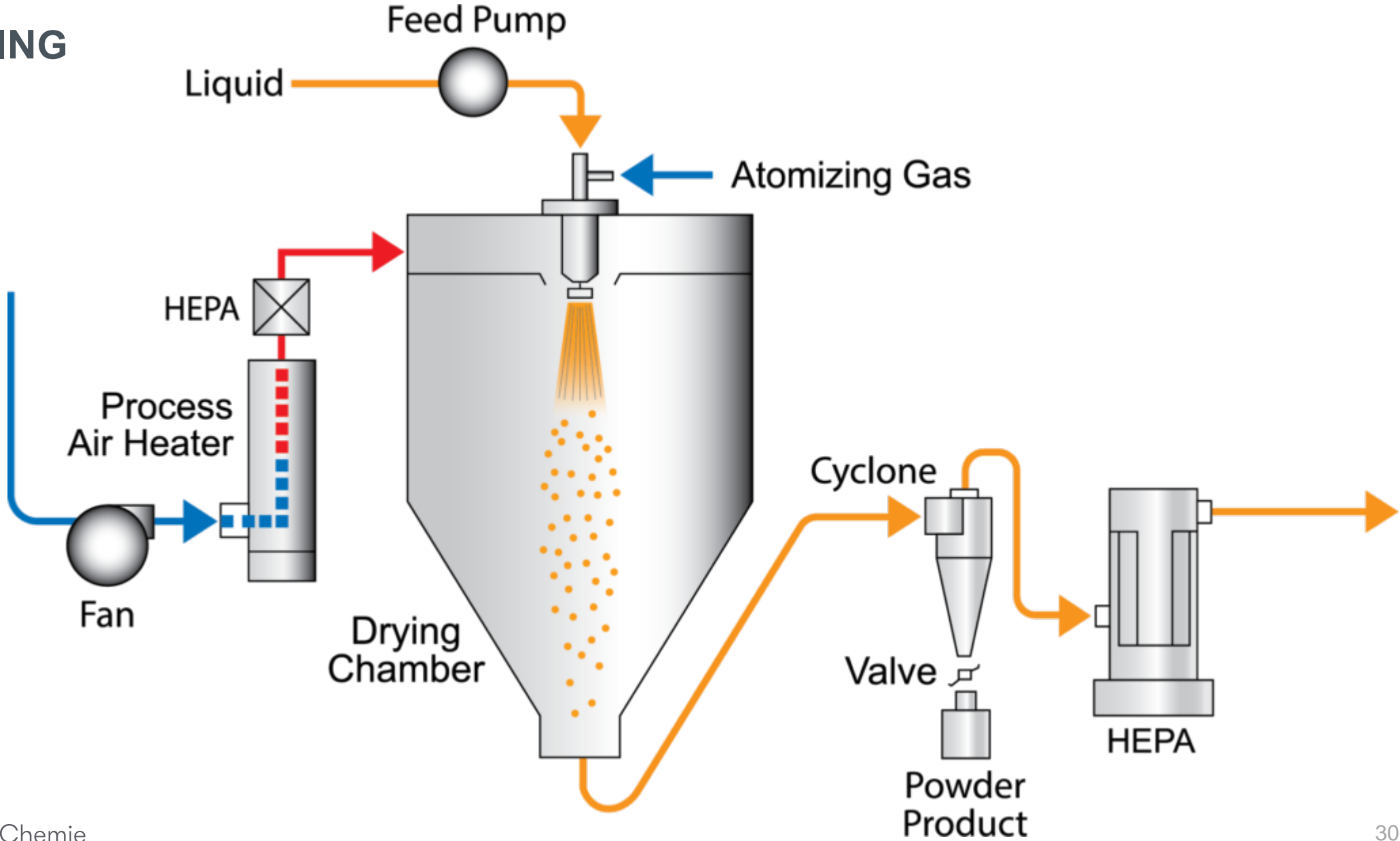


VINYL ACETATE ETHYLENE COPOLYMER



According to the theory of adhesion, adsorption and Surface reaction,, polar VAM and non-polar Ethylen can ineract beetwen pola and non-polar substrate

DRYING



OUR LINES



~70.000 DM3

LINE RDP
VEOVAQ 1500
VEOVAQ 2000



~150.000 DM3

LINE RDP
VEOVAQ 1000
VEOVAQ 3000

VEOVAQ - PORTFOLIO

VEOVAQ® TYPE	1000	1100	1109	1121	1500	2000	2112	3000
Polymer	VAE	VAE	VAE	VAE	VAE	VAE	VAE	VAE
TG	+10°C	+10°C	+10°C	+10°C	+16°C	-8°C	-8°C	-12°C
MFT	~0°C	~0°C	~0°C	~0°C	0-3°C	0°C	0°C	0°C
APPLICATION								
CTA standard	•••	•••	•••	•••	•••	•••	•••	•••
CTA High Performance	•••	••	•••	•	•	••	••	•••
CTA Flexible	•	•	••	•	•	••	••	•••
Tile Grout	••	••	•••	••	••	•••	••	••
SLF	••	•	••	•	•	•	•	•
ETICS Adhesieve	••	••	••	••	••	•••	•••	•••
ETICS Coat	••	••	••	••	•	•••	•••	•••
Plaster Interior	•••	••	•••	•••	•••	•••	•••	•••
Plaster Exterior	•••	••	•••	••	•	•••	••	•••
Gypsum	•••	•••	•	•	••	•	•	•



••• Highly Recommended •• Recommended • Workable



Chemie

ADDIQ®

ADDITIEVES

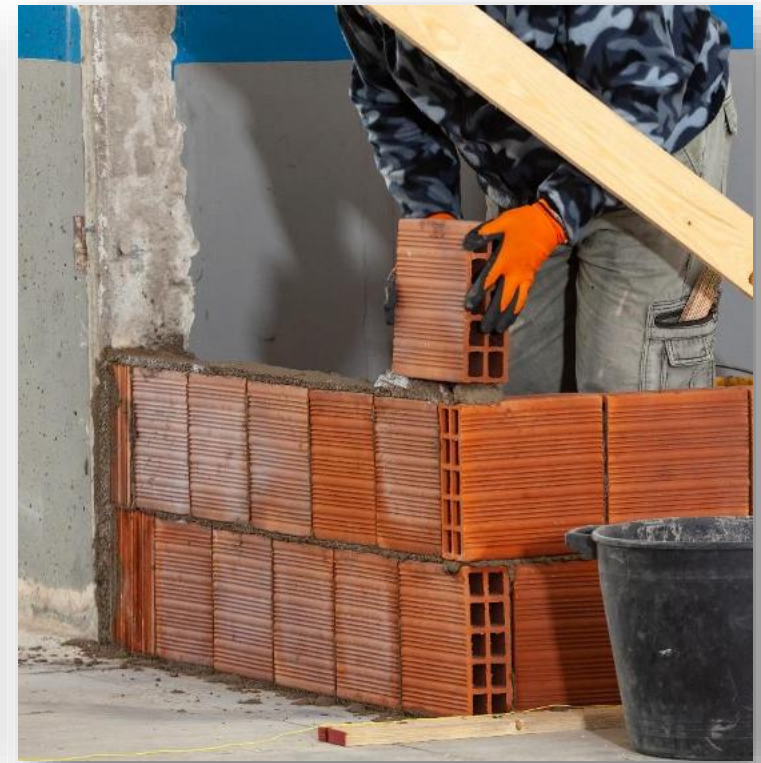
- OWN BRAND OF HSH
- SOLUTIONS



ADDIQ®

- ADDIQ B 201 PCE – SUPERPLASISIZER
- ADDIQ B XXX CF (W/G) – CELLULOSE FIBERS
- ADDIQ B 828 WET – WETTING AID (LOW HLB)
- ADDIQ B 120 GR – GYPSUM RETARDER (PLASTER, PUTTIES)
- ADDIQ B 32 T – OPEN TIME EXTENDER
- ADDIQ B 03 BQ – MODIFIED BENTONITE FOR WATER BASED
- ADDIQ B 90 AIR – AIR ENTERNAIR (ALPHA OLEFINS)

2025 – APPLICATION CENTER



SUPPORTING TEAM





Chemie

CELLQ very much!

