

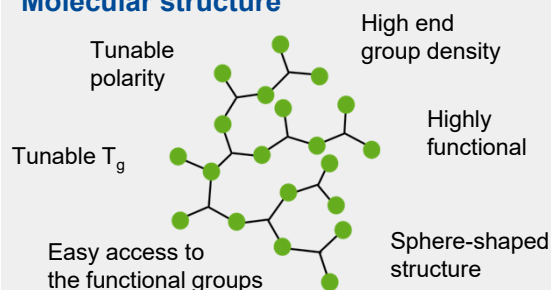
Performance enhancement for high solid 2K PU with new hyperbranched polyesters

Basonol® HPE 1170 B & Basonol® HPE 1265 B

Performance highlights

- Faster curing speed
- Early block resistance, early handling, faster sandability etc.
- Increased pot life
- Improved final hardness
- Improved reflow behavior
- Improved chemical resistance
- Excellent weather resistance
- Minimal impact on VOC

Molecular structure



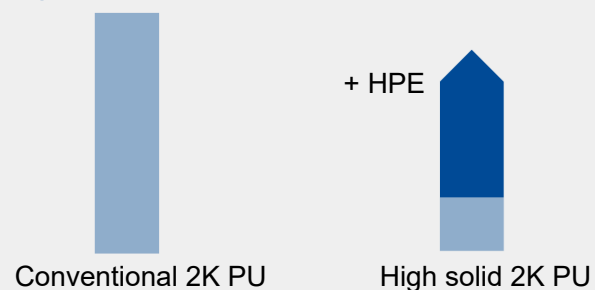
Usage

- Cobinder with acrylics and polyesters (10-30%)
- Main focus on high solid 2K PU systems
- Conventional to medium solid 2K PU (pot life)
- 1K amino resin systems (chemical resistance, ...)

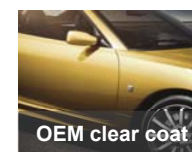
Supply specification

Polyol	Solid [%]	OH-number [mg KOH/g]	Tg [°C]
Basonol® HPE 1170 B	70	275	19
Basonol® HPE 1265 B	65	180	38

Increasing high solid 2K PU coatings performance by using HPE as co-binder



Exemplary applications



Availability

HPE 1170 B:
fully commercialized

HPE 1265 B:
samples available

Weathering & light stable high performance polyol Sovermol® 780

Performance highlights

- S.780 is a analytical countertype to Desmophen VPLS 2249/1
- Excellent chemical resistance
- Good hydrophobicity
- Hardness similar to epoxy systems
- High content of renewable raw materials
- Excellent hydrolysis stability
- High T_g-polyol
- Functionality ~ 3

Key technical data

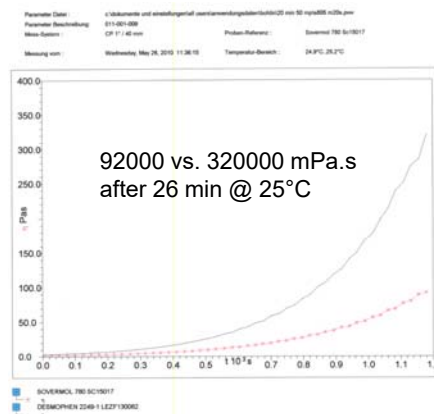
- Appearance: Yellow, low viscosity fluid
- Viscosity: 2000 - 2600 mPa·s (20 °C)
- Hydroxyl number: 485 - 535
- Acid number: < 2.0
- Water content < 0.2 %
- Labeling: No labeling

Exemplary applications



Availability

Samples & commercial quantities available



- Lower water absorption (hydrolysis stable)
- Significantly less surface defects under critical curing conditions based on hydrophobic performance
- Lower reactivity

Guiding formulation Sovermol 780 + HPE, Matt

Industry			
Industrial Coating - 2K PU High Solid			
Index 1, Binder – Hardener ratio			
Pos.	Trade name	Parts	
1.	Sovermol 780	5,6	
2.	Basonol® HPE 1170B	8,0	
3.	Capa 3031	1,3	
4.	EFKA® FL 3741	0,3	
5.	EFKA® SI 2040	0,2	
6.	EFKA® FA 4672	3,4	
7.	TiO2 – Sachtleben RD 3	29,5	
8.	Wollastonite 10 ES	29,5	
9.	Sidishield C 25	4,0	
10.	Acematt 3600	2,0	
11.	n-butyl acetate	16,2	
Subtotal		<u>100,0</u>	
12.	Basonat® HI 2000 NG	16,8	
13.	2-butoxy-ethyl acetate	1,0	
<u>Adjusting to different viscosities with n-bac/Xylol (2/3)</u>			
flow time DIN 4 Cup	amount of solvent	solid content	VOC
~ 50 sec	3,30 g	81,0%	301,38 g/L

Guiding formulation Sovermol 780 + HPE, White

Industry
 Industrial Coating - 2K PU High Solid
 Index 1, Binder – Hardener ratio

Pos.	Trade name	Parts
1.	Basonol® HPE 1170B	26.77
2.	Sovermol® 780	18.74
3.	Efka® FA 4609	2.81
4.	Efka® PB 2744	1.87
5.	Efka® SL 3777	2.95
6.	Aktifit® PF 111	4.69
7.	Kronos® 2310	42.17
Component A		100.00
8.	Basonat® HI 2000 NG	48.27

Adjusting to different viscosities with n-bac/Xylol (2/3)

flow time DIN 4 Cup	amount of solvent	solid content	VOC
~ 50 sec	18.20 g	83.07%	229.37 g/L

Guiding formulation Sovermol 780 + HPE, Clearcoat

Industry
 Industrial Coating - 2K PU High Solid
 Index 1, Binder – Hardener ratio

Pos.	Trade name	Parts
1.	Basonol® HPE 1170B	58.5
2.	Sovermol® 780	40.9
3.	Efka® SL 3030	0.6
Component A		100.0
4.	Basonat® HI 2000 NG	101.2

Adjusting to different viscosities with n-bac/Xylol (2/3)

flow time DIN 4 Cup	amount of solvent	solid content	VOC
~ 50 sec	38.10 g	76.5 %	236.04 g/L

 **BASF**

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