

Technical Data Sheet - Provisional

Lacovyl® mK68-F is a new PVC resin, manufactured by KEM ONE and designed for flexible applications.

Because of its specific manufacturing process, mK68-F exhibits outstanding absorption properties keeping very good mechanical performance.

Formulations used for characterization tests exhibited here below contain 50 phr of plasticizer.

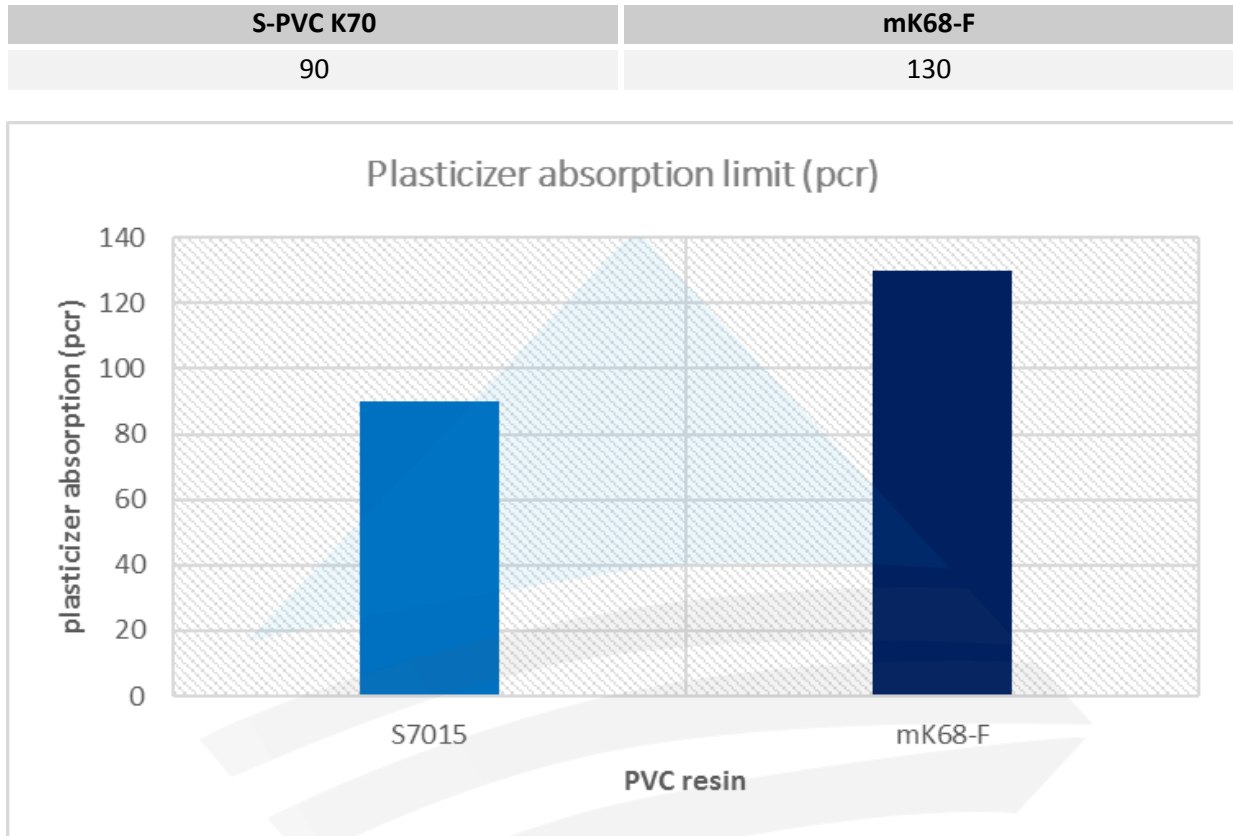
■ Technical characteristics

● Resin Characteristics

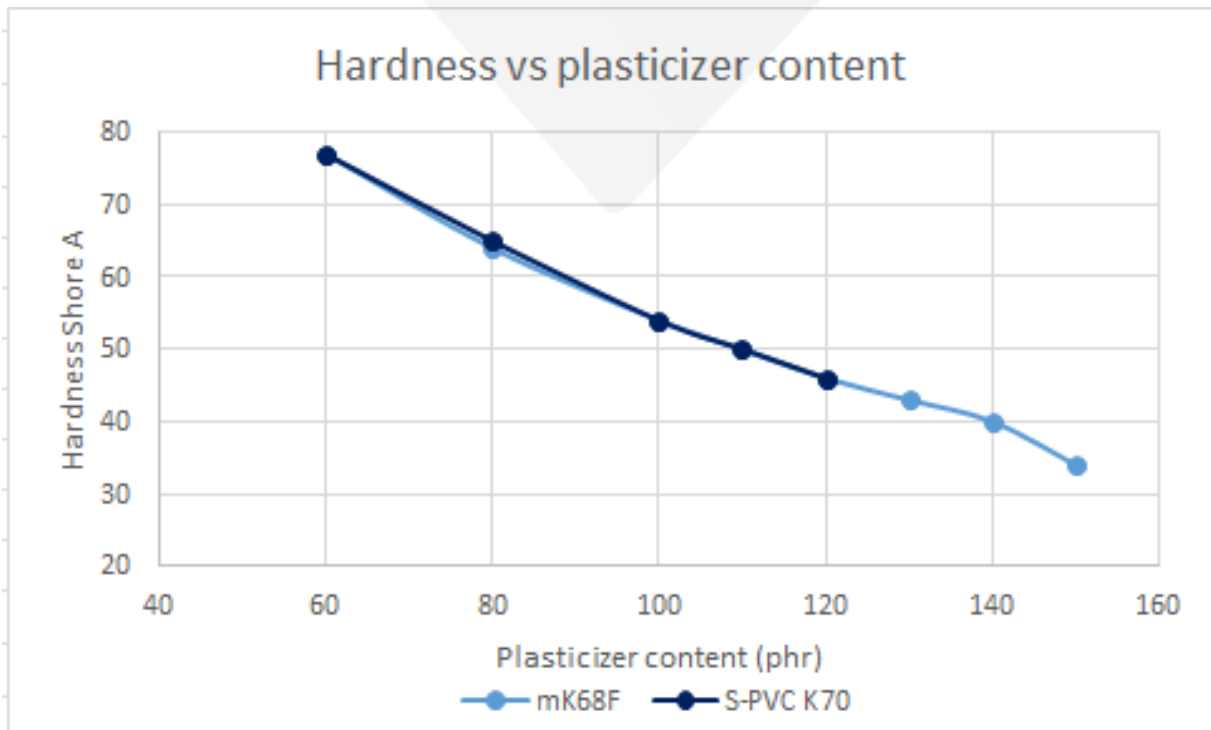
Characteristic	Standard	Typical value	Unit
K-Value	ISO 1628-2	68	-
Viscosity Index	ISO 1628-2	116	ml/g
Bulk Density	ISO 60	0,510	g/cm ³
Fraction particle size >250 µm	ISO 13320	<0,5	%
Fraction particle size >63 µm	ISO13320	>95	%
Residual Monomer	ISO 24538	< 1	ppm
Porosity	ISO 4608	34	%

● Plasticizer absorption time (min) – Low speed mixer

Plasticizer Content (phr)	S-PVC K70 Time for absorption (min)	mK68-F Time for absorption (min)	Absorption time gain (%)
40	14	13	7
60	19	16	16
90	22	20	10
100	X	21	Over absorption limit for S-PVC K70
110	X	21	
120	X	22	
130	X	22	
140	X	x	Over absorption limit for mK68-F



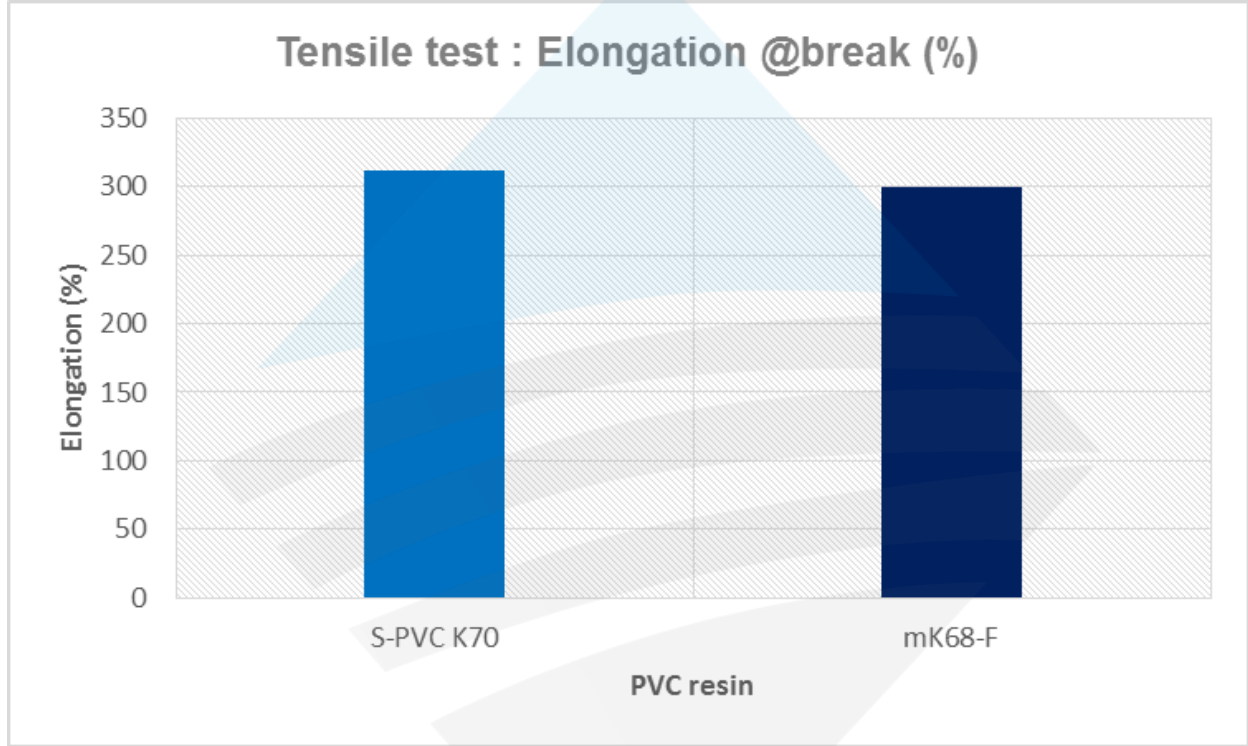
- Plasticizer absorption limit using Turbo-mixer (High speed) (pcr)



According to ISO 527 – 5a @23°C – 200 mm/min

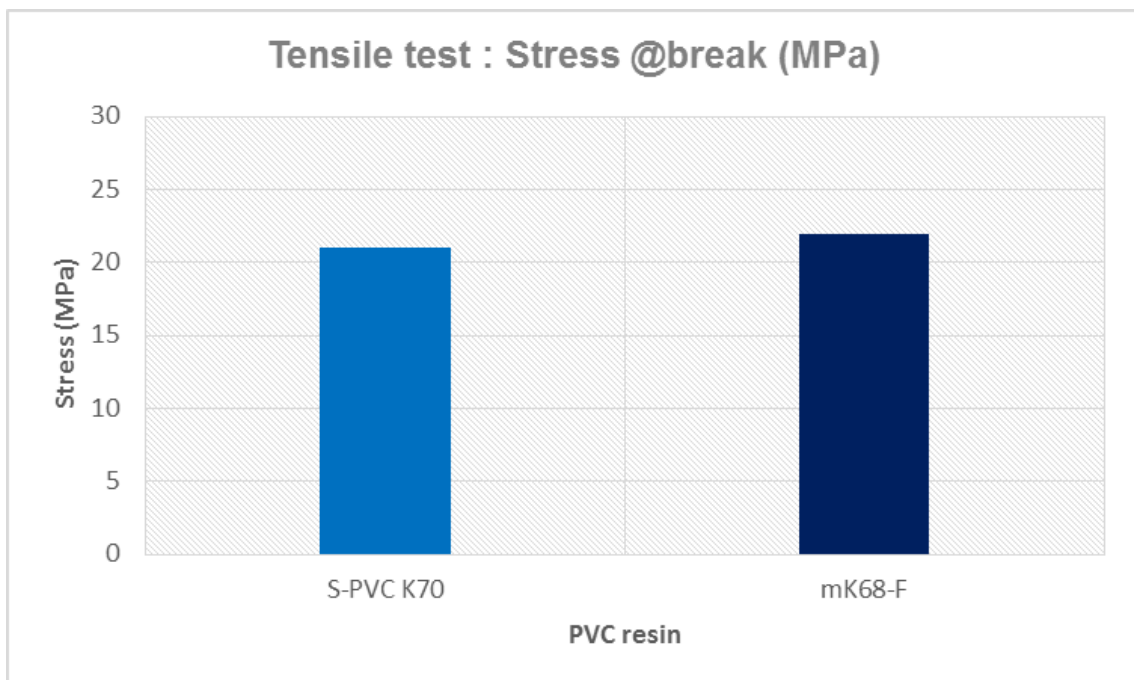
- Tensile Strain @break (%)**

	S-PVC K70	mK68-F
Elongation (%)	312	300



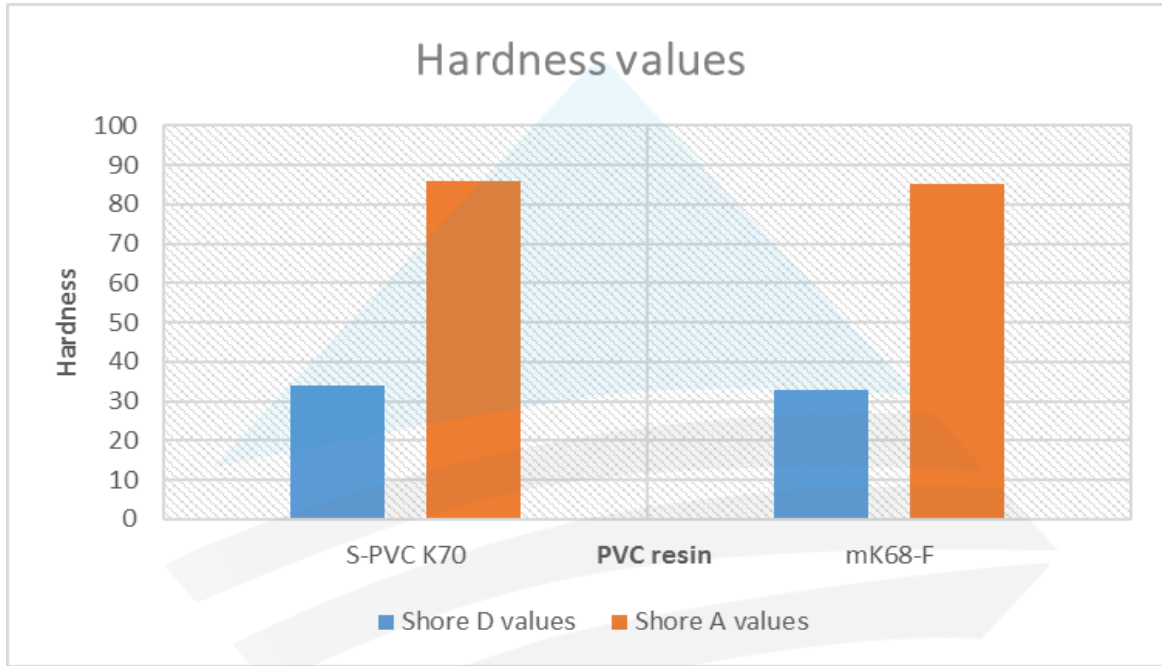
- Tensile Stress @break (MPa)**

	S-PVC K70	mK68-F
Stress (MPa) (%)	22.5	20.7



● **Hardness Shore A & D**

Plasticizer added in mK68-f is as efficient as it is in S-PVC K70.



	S-PVC K70	mK68-F
Shore D values	34	33
Shore A values	86	85

- **Colour measured on transparent extruded tape**

	S-PVC K70	mK68-F
L*	69,2	69,2
a*	-0,4	-0,4
b*	22,8	22,7

- **Extrusion parameters**

Processing conditions are the same for both PVC resins.

Extrusion process	S-PVC K70	mK68-F
Extruder Zone 1 (°C)	155	155
Extruder Zone 2 (°C)	180	180
Extruder Zone 3 (°C)	185	185
Die (°C)	185	185

Extruded products are glossy, smooth and transparent.

There is no difference between S-PVC K70 and mK68-F.

- **Migration test (24h@70°C)**

1 mm thick sample is put between two rigid PVC plates in an oven at 70°C. A load of 5 DaN is applied on the top. The loss of weight reached by the sample after 24 hours is measured and the ratio of the weight loss by the sample area is calculated.

	S-PVC K70	mK68-F
Migration Result (mg/cm²)	0.16	0.16