Acran Boğaziçi Kimya A.Ş.
Bahçeşehir 1. Kısım Mh. Bülbül Cd. No: 39 Başakşehir / İstanbul
info@acran.com.tr | www.acran.com.tr | + 90 212 659 94 37

# Lacovyl® mK68-F

Homopolymer PVC

## 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

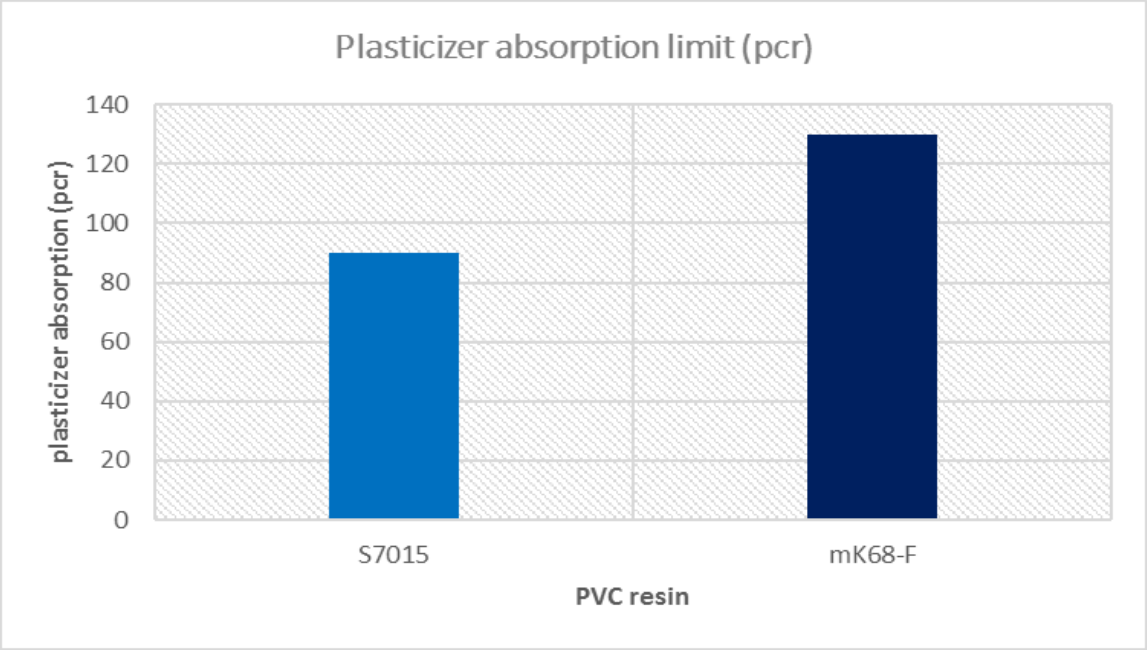
| Characteristic | Standard | Typical value | Unit |
|---|---|---|---|
| K-Value | ISO 1628-2 | 68 | - |
| Viscosity Index | ISO 1628-2 | 116 | ml/g |
| Bulk Density | ISO 60 | 0,510 | g/cm$^3$ |
| Fraction particle size >250 µm | ISO 13320 | <0.,5 | % |
| Fraction particle size >63 µm | ISO13320 | >95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

#### Plasticizer absorption time (min) – Low speed mixer

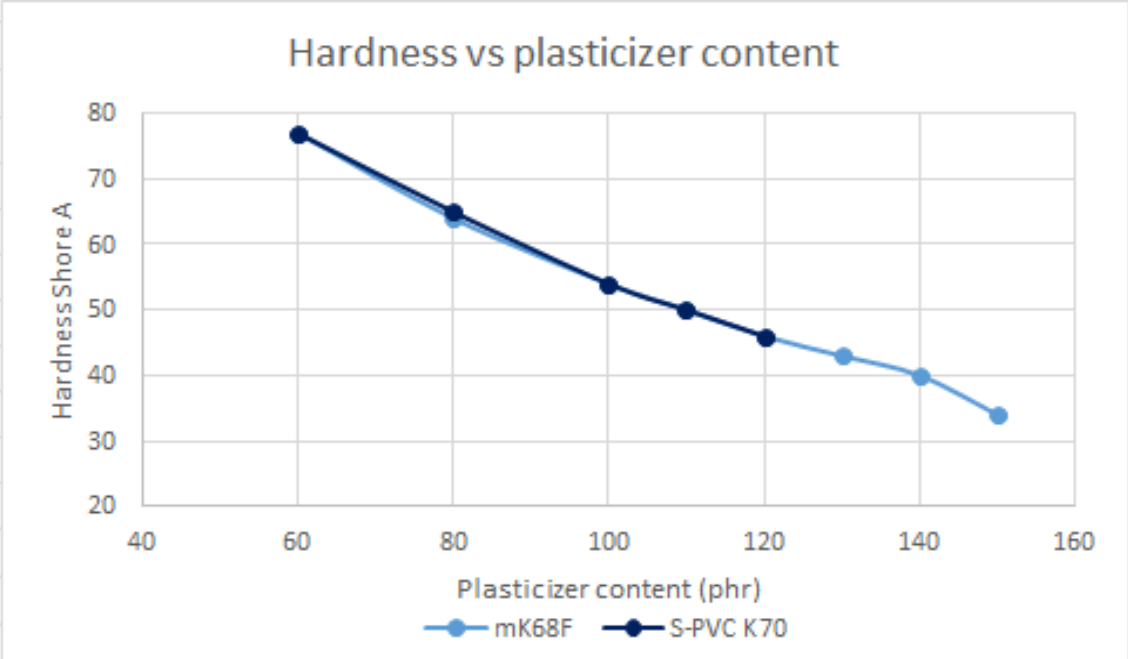
| Plasticizer Content (phr) | S-PVC K70 Time for absorption (min) | mK68-F Time for absorption (min) | Absorption time gain (%) |
|---|---|---|---|
| 40 | 14 | 13 | 7 |
| 60 | 19 | 16 | 16 |
| 90 | 22 | 20 | 10 |
| 100 | X | 21 | Over absorption limit for S-PVC K70 |
| 110 | X | 21 | |
| 120 | X | 22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

- **Plasticizer absorption limit using low speed mixer (pcr)**

| S-PVC K70 | mK68-F |
|---|---|
| 90 | 130 |




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

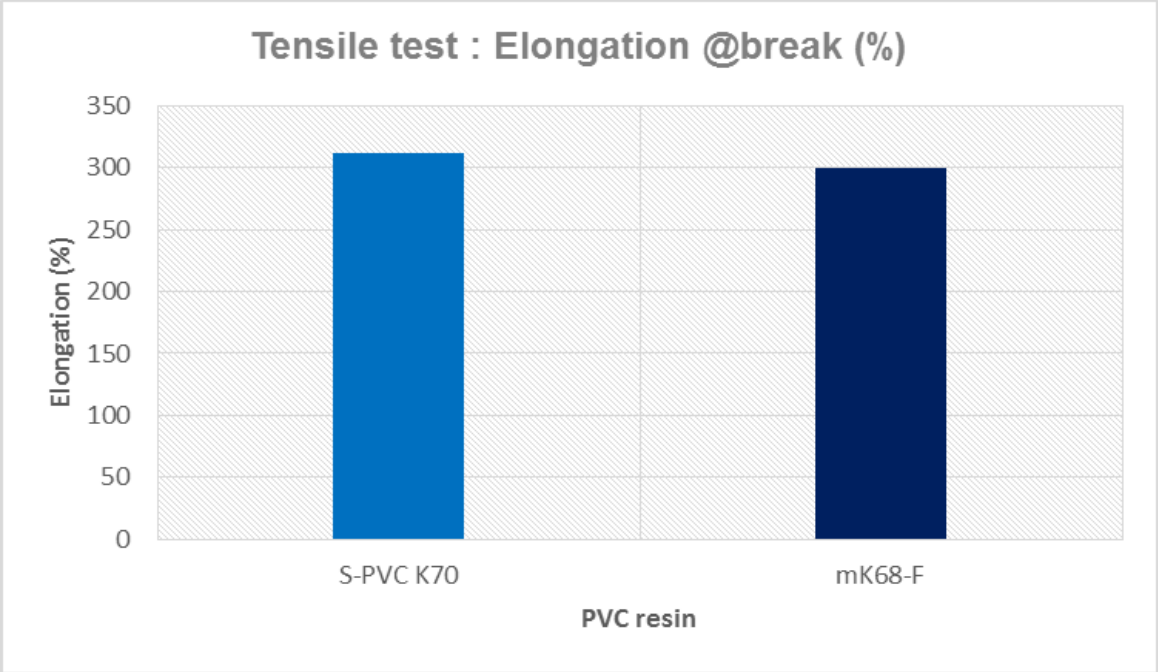


- **Tensile properties**

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

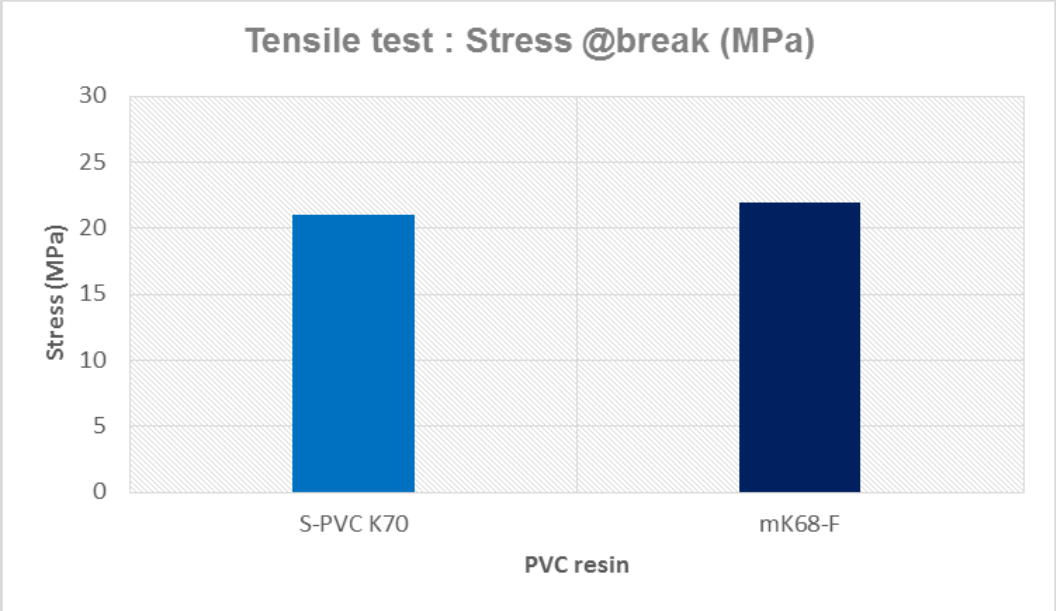
- **Tensile Strain @break (%)**

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



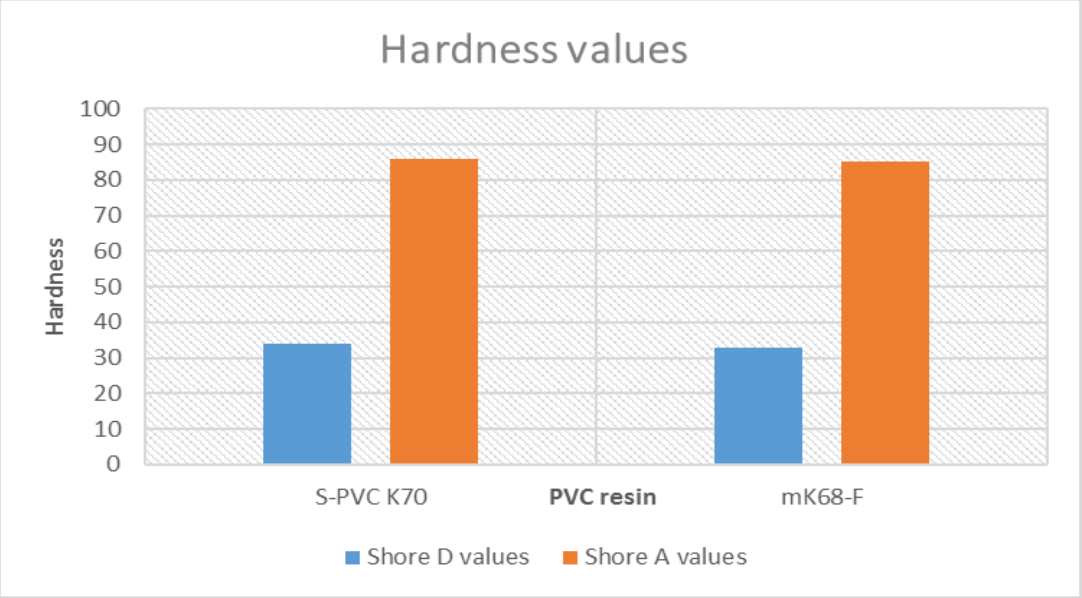

- **Tensile Stress @break (MPa)**

| | 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 |