





AKRELON® PA L 180 / Lubricating Processing Aid

DESCRIPTION

AKRELON PA L180 is a low molecular weight lubricating processing aid which can be used across **opaque PVC applications** to ensure efficient external lubrication and die release without delaying fusion. Thanks to its polymeric structure and well-balanced molecular weight, it forms a very heat stable and non-sticking lubricating film. This improves surface finish significantly and avoids sticking in the hot die or calendering rolls.

Having a chemistry compatible with PVC resin, AKRELON PA L180 stays attached to the PVC matrix during processing and does not leave deposits on the tooling. As a result, this product can replace polyethylene or similar waxes to reduce plate-out and prolong tool cleaning period. Apart from lubrication properties, it promotes fusion, improves melt strength and improves melt homogeneity.

PHYSICAL PROPERTIES

| Chemical Description | Acrylic copolymer | | | |
|-----------------------------------|------------------------------------|--|--|--|
| Physical Form | White free-flowing powder | | | |
| Bulk Density (g/cm ³) | 0.43 – 0.53 | | | |
| Volatile Content (wt.%) | 1 <u>+</u> 0.2% | | | |
| Sieve Analysis | 20 mesh/850 μm (on %) ~nil | | | |
| | 325 mesh/45 µm (pass%) – 0.90% | | | |
| | 450 mesh/32 μm (pass %) - 0.40% | | | |
| Molecular Weight | Low molecular weight (IV 0.8- 1.2) | | | |
| Packaging | 20 kg PE bag | | | |
| Shelf Life | 3 years from date of manufacturing | | | |

APPLICATION CHART

| | 95 | | | | | 000 | | |
|--------------------------|-----------------------------|----------------------------|----------------------------|-----------------|--|----------------------------|------------------------|------------------|
| UPVC Pipes & One pack | UPVC Fittings & One pack | CPVC Pipes & Super pack | CPVC Fittings & Super pack | Window Profiles | Rigid PVC Sheet/ Laminates / Marble /Liner | Transparent Rigid Sheet | WPC, SPC and Panels | PVC Edge Band |
| +++ | +++ | +++ | +++ | +++ | +++ | N/A | +++ | N/A |

| +++ | Strongly Recommended |
|-----|----------------------|
| ++ | Recommended |
| N/A | Not Applicable |

PERFORMANCE

1. RHEOLOGY COMPARISON

| | AKRELON PA L180 | Competitor A | Competitor B | Competitor C | |
|--------------------|-----------------|--------------|--------------|--------------|--|
| Fusion Time (s) | 78 | 69 | 86 | 79 | |
| Fusion Torque (Nm) | 26.3 | 26 | 25.3 | 25.2 | |

2. TIME TO STICK

| | Time (min) | | | | | | |
|--------------------|------------|------|----|----|----|----|---------------|
| | 5 | 10 | 15 | 20 | 25 | 30 | Time to Stick |
| AKRELON PA L180 | | (39) | | | | % | 34 |
| Competitor A | | | | | | | 28 |
| Competitor B | | | | | | | 26 |
| Competitor C | | | | | | | 27 |