

## TECHNICAL DATASHEET

Last update: 10.05.2016

### PDL S-Series

Polymer-based Compounds for Bitumen Membrane Applications

#### **Product Description:**

PDL S-Series is a polymer-based compound that solves issues that are usually encountered when introducing polymers such as SBS, PE and PP into bitumen membrane applications. S-Series products consist of *different types of high-quality* polymers, which are compounded with *Process Oils* specifically selected to achieve the optimal results in the final product.

Main advantages of using the PDL S-Series Compounds are,

- Improved cold resistance,
- Increased heat resistance,
- Better aging,
- Increased adhesion capabilities,
- Optimized penetration, which is crucial in minimizing potential issues during transportation, storage and final use of the product.

#### **Specifications:**

PROPERTIES	STANDARD	UNIT	PDL S-6020	PDL S-6600
Physical Properties:			min. /max.	min. /max.
Hardness	ISO 868	SHORE A	0 / 2	1 / 4
Density	ISO 2781	g/cm <sup>3</sup>	0.99 / 1.01	0.89 / 0.90
MFI (190°C/5 kg.)	ISO 1133	Gr/10 min.	10 / 30	-- / 0.5
Mechanical Properties:				
Elongation At Break	ISO 37	%	-- / >900	-- / >700

#### **Application I:**

PDL S-6600 was introduced into bitumen in concentrations of 5%, 10%, 20% and 30% of the mixture, and had much better adhesion properties of the bitumen as well as high elasticity and elongation.

#### **Application II:**

In formulations containing filler and mineral oil, there is a need for maximizing filler content and minimizing oil content, while keeping the cold cracking temperature below a desired limit. The aim is to achieve this through the bond between isotactic polypropylene and PDL S-6020.

- Low viscosity despite higher filler percentage, high workability, applicability
- Superior flexibility at lower temperatures,
- High temperature resistance,
- High compatibility with isotactic polypropylene, especially in manufacturing PE/PP compounds

PDL S-Series products not only perform as expected, but also increase the efficiency of other ingredients in the recipe. This proves that PDL S-Series Polymer Compounds help you achieve the desired results in your bitumen membrane production, even exceeding the expectations.