

# Product Data Sheet

## Lucolast® 9200

### 1. Product description

Lucolast®9200 is a blend of various ethylene copolymers exhibiting low crystallinity and improved elastomeric behavior.

### 2. Product properties

Addition of Lucolast®9200 to bitumen increases its viscosity and broadens the range of plasticity with elevated levels of elastic recovery. Although the minimum value of the Fraass breaking point of Lucolast®9200 is as low as for unmodified standard bitumen, the ring and ball softening point increases considerably depending on the grade and proportion of Lucolast®9200 that was added.

Penetration values decline accordingly. Ductility determined according to DIN EN 12591 decreases. However, the values ascertained for the so-called ductility at low temperatures are usually more favorable than those for standard bitumen without addition of Lucolast® 9200.

### 3. Applications

Even relatively small amounts of PmB based on Lucolast®9200 in asphalt mixtures improve:

- resistance to mechanical stress, in particular deformation and wear
- stability / rigidity and reduce the tendency to flow when hot and under load
- low temperature flexibility
- aging behavior

Addition of 3% Lucolast® 9300 to a 50/70 bitumen-polymer blend (PmB = Polymer modified Bitumen), approx.. a XX% elastic recovery ca be obtained.

Examples for application:

- poured asphalt, also on sloping surfaces (ramps)
- stone mastic asphalt (SMA)
- special asphalt surfaces, e.g. porous asphalt
- thin bituminous wearing courses (hot laying)

### 4. Processing into PmB

Bitumen is mixed homogeneously with Lucolast®9200 at temperatures ranges between 165 °C to 195 °C and is then ready for use. Depending on mixing intensity, the time required to mix large quantities (approx. 20 t) is 1 - 3 h. The usage of a high-speed shear mixing unit leads to a higher quantity of product. In order to avoid a possible phase separation, a continuous mixing process is required.

### 5. Environmental compatibility

Lucolast®9200 is environmentally friendly in manufacture and processing, free of plasticizers and chlorine, and not harmful to health, water, soils, or plants.

### 6. Packaging and storage

Granules in 25 kg bags, pallet standard 1375 kg and 1000 kg big bags. Other packaging upon request.

Lucolast®9200 should be stored under dry conditions at a temperature below 40 °C and protected from UV-light, otherwise the packaging should be damaged. Storage time in excess of 6 months may have a negative influence on the process ability of the product. We strongly recommend to use the material within 6 months after delivery.

Use beyond the recommended shelf-life, the product should be inspected prior to use according to quality assurance measures to ensure product performance.

Typical Properties	Standard	Unit	Lucolast®9300
Specific gravity (23 °C)	ISO 2781	g/cm <sup>3</sup>	0,94
Apparent Density	ISO 60	kg/l	0,5
Melt Flow Rate 200°C / 5 kg	ISO 1133	g / 10'	approx. 4
E-Modulus	ISO 527	MPa	61
Elongation at break	ISO 527	%	750
Shore A – Hardness	ISO 868	-	90

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