



PENSEL D-125, D-135 and D-160

1. Product Information

PENSEL D series are polymerized rosin esters that feature higher softening point. Considering this, the products are still capable of good compatibility with various elastomers such as natural rubber, synthetic rubbers and acrylic resin. In comparison with standard types of rosin ester, they excel in adhesion at high temperature.

PENSEL D-125 is produced in Guangxi Wuzhou Arakawa in China. PENSEL D-135 and D-160 are produced in Japan.

2. General Specifications

	PENSEL D-125	PENSEL D-135	PENSEL D-160
Appearance	Flake form	Flake form	Chunk form
Color (Gardner)	≤ 13	≤ 13	≤ 13
Acid Value	10 - 16	10 - 16	10 - 16
Softening Point (R&B, °C)	120 - 130	130 - 140	150 - 165
Mn (Typical)	950	1,000	1,180
Mw/Mn (Typical)	2.04	2.24	2.64
Tg. (Typical, °C)	77	83	107

3. Benefits

- Strong adhesion at high temperature and good compatibility
- Good performance in stable weight peeling and curved surface bending
- Hydroxyl groups of D-125 and D-135 are controlled, as a result, these products work well with isocyanate to get better adhesion

4. Packaging

55.115LB (=25KG) net in paper bag

35 bags per skid in PENSEL D-125, 40 bags per skid in PENSEL D-135 and D-160

5. Heat Stability

	PENSEL D-125	PENSEL D-135	PENSEL D-160
Initial Color	9	10	10
2 hours	10 +	10 +	10 +
8 hours	11	11	11 -
24 hours	12 +	12 +	12
Loss on heat (5 hours, %)	1.38	1.36	0.41

1) Checked a sample (5g) in a dryer at 200°C

6. Performance (EVA#220/Resin/Microcrystalline Wax = 40/40/20 (weight %))

		D-125	D-135	D-160
SP (°C)		88.0	89.0	90.0
Melt Viscosity (cps, 160°C)		6,600	7,150	7,450
Heat Stability at 180°C, *1		no skinning for 24 hours	no skinning for 12 hours	no skinning for 12 hours
Aluminum /Aluminum	Peeling Strength, *2 at 20°C	1.34kg/25mm	1.32kg/25mm	1.20kg/25mm
PE/Aluminum		1.24kg/25mm	1.10kg/25mm	0.21kg/25mm
Holding Strength (min., at 70°C x 200g) to Aluminum		61	62	65

*1. Heat Stability: Measured at 180 degrees centigrade in a drier

*2. Peeling Strength: Measured by 90 degrees peel and peeling speed at 300mm/min.



PENSEL D-125