

## PENSEL GA and GB series



### 1. Product Information

PENSEL GA-90 is a glycerol rosin ester and PENSEL GA-100 and GB-120 are pentaerythritol rosin esters. They are based on Chinese Gum Rosin and produced by Guangxi Wuzhou Arakawa- China. These resins can be used in various adhesive applications and with a variety of elastomers. PenseL gives excellent performance in adhesion and provides heat stability to the end use applications. These products are especially engineered to provide these properties with EVA.

### 2. General Specifications

	PENSEL GA-90	PENSEL GA-100	PENSEL GB-120
Color (Gardner)	≤ 4	≤ 4	≤ 7
Acid Value	≤ 7	10 -20	10 - 20
Softening Point (R&B, °C)	88 - 93	100 - 106	117 - 126
Mn (Typical)	770	850	1,067
Mw/Mn (Typical)	1.30	1.73	2.39

### 3. Heat Stability

	PENSEL GA-90	PENSEL GA-100	PENSEL GB-120
Melt Viscosity (cps) at 180°C	110	170	1,000
Initial Color	4	5	6 +
2 hours	4 +	5 +	7 -
4 hours	4 +	5 +	7
8 hours	4 +	5 +	7 +
Clouding Point with EVA (°C), *1	< 50	< 50	< 50

- 1) Measured by Brookfield type viscometer
- 2) Checked a sample (30g) in an oven at 180°C
- 3) \*1: The ratio between EVA #220 and resin is 1:1.



Arakawa Chemical (USA) Inc.  
625 N. Michigan Ave. Suite 1700  
Chicago, IL 60611 USA

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

		GA-90	GA-100	GB-120
SP (°C)		84	85	85
Melt Viscosity (cps, 150°C)		4,650	4,700	6,600
Heat Stability at 180°C		no skinning for 96 hours	no skinning for 96 hours	no skinning for 96 hours
Cardboard/Aluminum	at 5°C	1.15kg/25mm	0.85kg/25mm	1.00kg/25mm
	at 20°C	Partially destroyed	Partially destroyed	Partially destroyed
	at 35°C	Destroyed	Destroyed	Destroyed
	at 50°C	1.50kg/25mm	1.80kg/25mm	1.78kg/25mm
PE/Aluminum	at 20°C	1.60kg/25mm	0.95kg/25mm	1.40kg/25mm
Creep Resistance (min., at 60°C x 500g) Cardboard/Aluminum		60	146	507

**5. Benefits**

- Good compatibility for various elastomers
- Good heat stability
- Giving excellent performance in adhesion

**6. Packaging**

55.115LB (=25 KG) paper bags, 35 bags per wooden skid