

KES

Phenolic Resins

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1. Scope of Application

This standard specifies the penolic resin used as a sub-material for the manufacture of coated sand.

2. Quality

Penolic resin is brown and tablet shaped, having a diameter of 5mm. Quality shall conform to Table 1.

Table 1

Moisture %	Melting point °C		Fluidity mm	GEL time (SEC)	Moisture absorbing rate %
	Winter	Summer			
0.8 or less	78-82	82-85	120-160	70-90	2 - 4

3. Test Method

3.1 Sampling Method of Test Piece

Take 10g of the sample randomly, for each bag, from the inspection lot according to KS A 3151 (Random sampling method).

3.2 General Condition of Test

Testing site condition shall be $20 \pm 10^{\circ}\text{C}$ and have a relative humidity of $65\% \pm 15\%$.

3.3 Moisture Test

3.3.1 Device

- (1) Equilibrium volume method is performed the equilibrium bottle 50mm in diameter, according to KS L 2302 (Shape and dimension of glass apparatus for chemical analysis).
- (2) Desiccator is as in KS L 2303 (Glass apparatus for chemical analysis) filled with silica gel.

3.3.2 Test method

Put 1g of the sample into the equilibrium volume bottle (sample shall be spread as widely as possible) and balance it. Dry the bottle in the desiccator for 96 hours $\pm$ 1 hour, at a room temperature of 20°C . Weight loss shall be considered as moisture.

Moisture content will be calculated up to the first floating point by following formula:

$$W = \frac{W_1 - W_2}{W_1} \times 100$$

W_1 : Weight prior to desiccation (g)

W_2 : Weight after desiccation (g)

Remark: If moisture content becomes 2-3%, the combination of haxa and resin is accelerated and fluidity is lowered, reducing shell structure.