

Heat Resistance of Polyamide

R&D Center

1. Heat resistance properties of polyamide

When polyamide resin is left in a hot air atmosphere for a long time, it is oxidized so that heat aging occurs which breaks polymer chains, and ultimately mechanical properties and surface conditions are degraded. The degree is dependent on the temperature, time, and thickness of parts. In general, polyamide resin's heat resistance can be improved by applying antioxidants or heat stabilizers.

2. Heat resistance grades of KEPAMID

KEPAMID PA6	KEPAMID PA66
1315GFH	2325GFH
1330GFH	2330GFH
1350GFH	2335GFH
	2350GFH

3. Heat resistance properties of KEPAMID 66 unreinforced grades

Heat resistance properties at 130 °C for KEPAMID PA66 unreinforced standard and heat resistance grade are shown in Figure 1. The retention rate of tensile strength from our heat resistance grade is extremely higher than our standard grade.

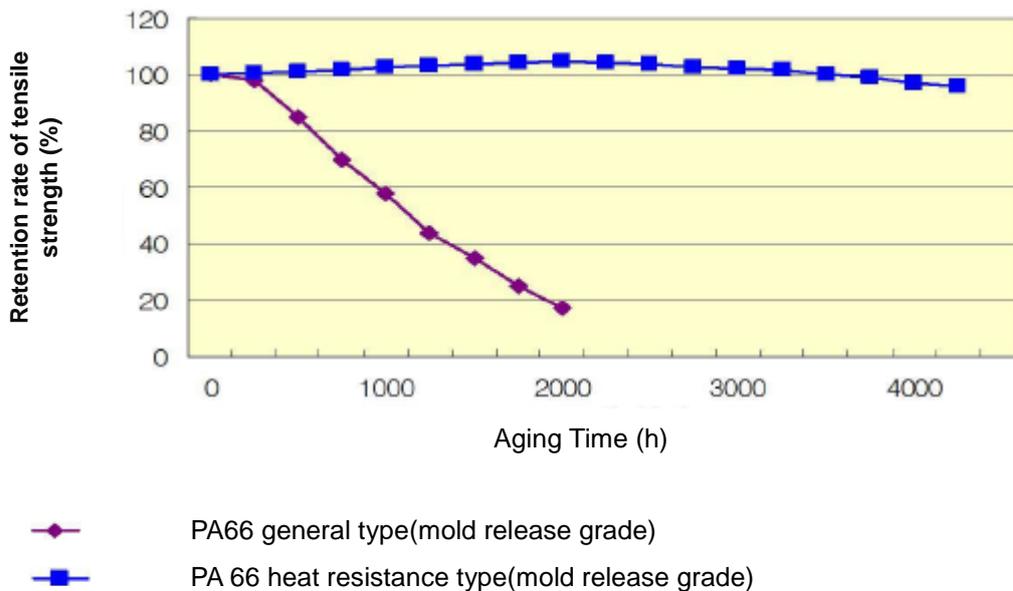


Fig.1 Heat resistance of KEPAMID unreinforced and mold release grade

4. Heat resistance properties of KEPAMID 2325GFH

The heat resistance properties of KEPAMID PA66 glass fiber 25%-reinforced heat-resistant grade (2325GFH) at 190°C are shown in Figure 2.

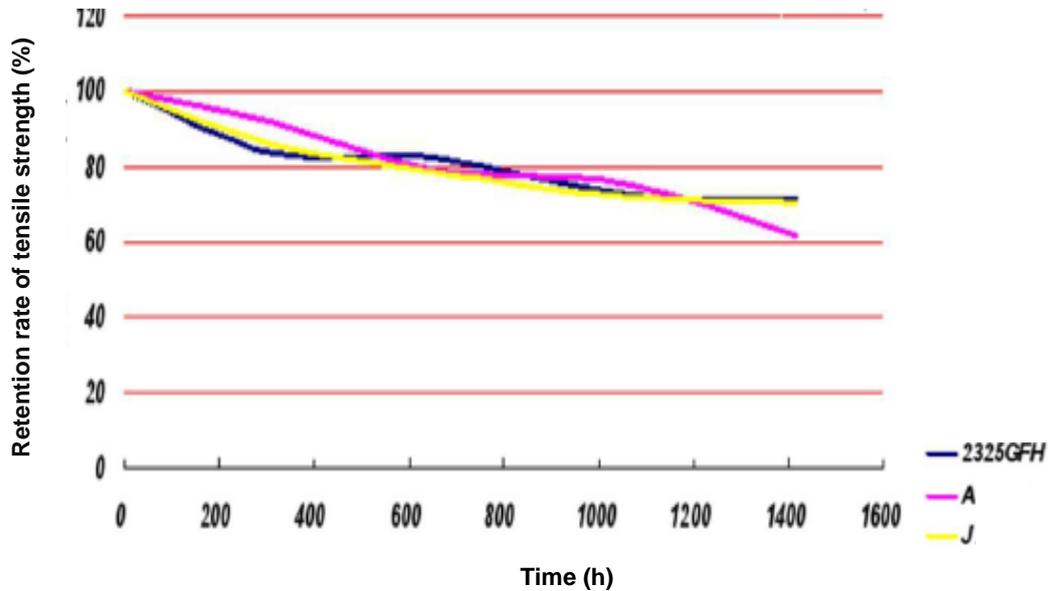


Fig. 2 Heat resistance of KEPAMID 2325GFH (G/F 25%-reinforced Grade)

5. Heat resistance properties of KEPAMID 2330GFH

Heat resistance properties of KEPAMID PA66 G/F 30%-reinforced heat-resistance grade (2330GFH) at 150°C (UL spec. Oven) are shown in Figure 3. KEPAMID 2330GFH has a superior retention rate of tensile strength compared to KEPAMID PA66 G/F 30%-reinforced standard grade, 2330GF.

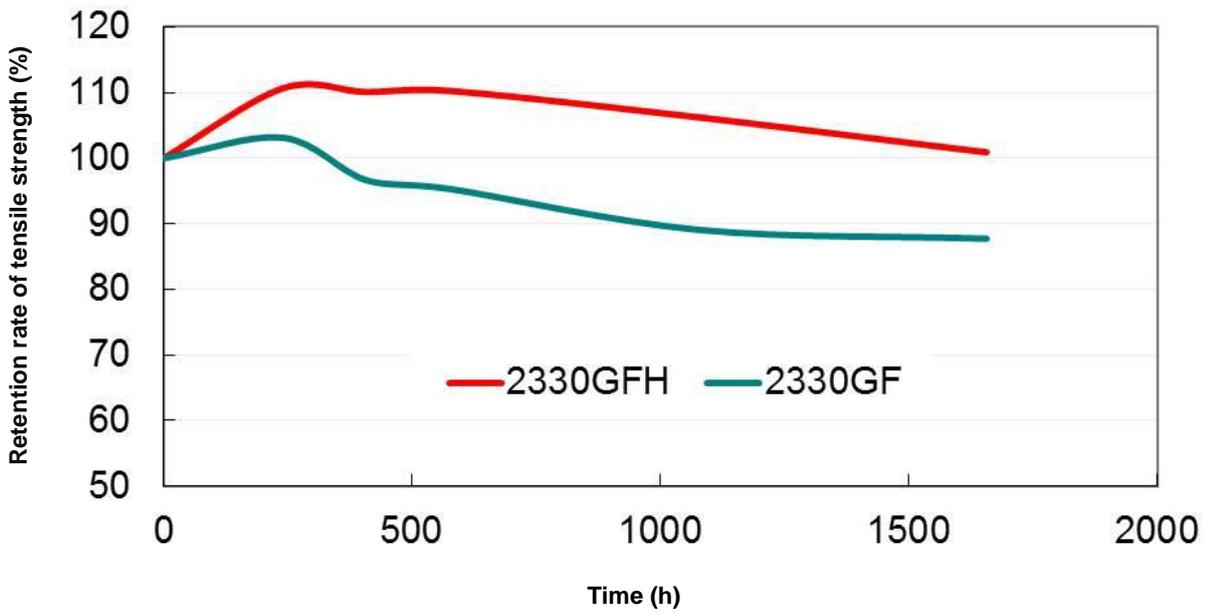


Fig. 3 Heat resistance of KEPAMID 2330GFH (G/F 30%-reinforced grade) at 150 °C

Heat resistance properties of KEPAMID PA66 G/F 30%-reinforced heat-resistance grade (2330GFH) at 190 °C (UL spec oven) are shown in Figure 3. KEPAMID 2330GFH has a superior retention rate of tensile strength compared to KEPAMID PA66 G/F 30%-reinforced standard grade, 2330GF.

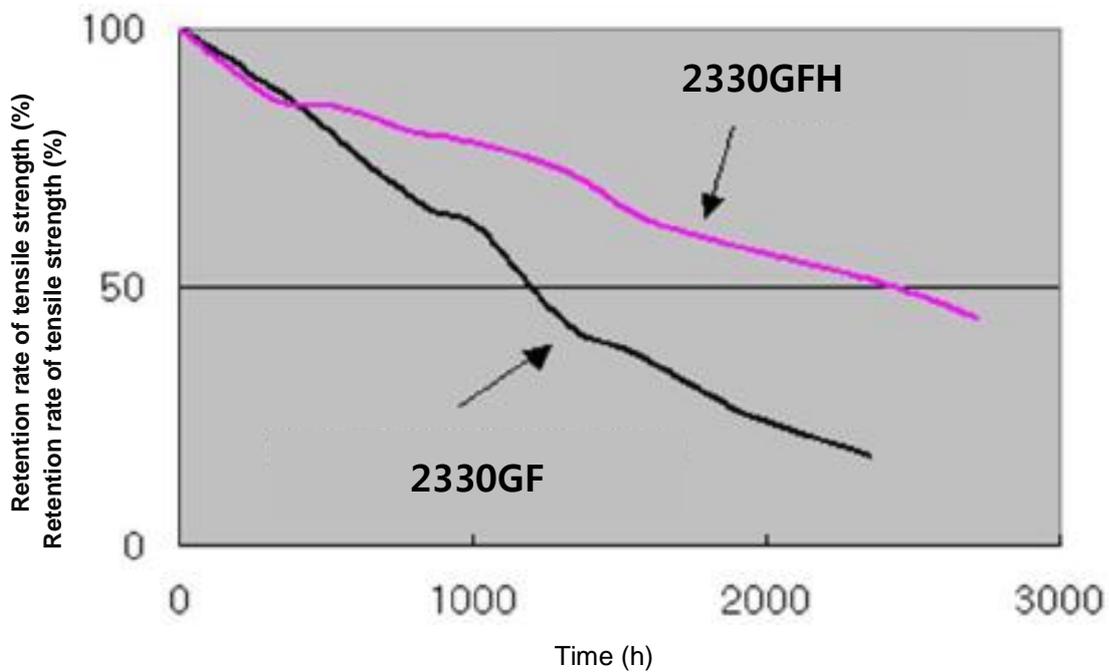


Fig.4 Heat resistance of KEPAMID 2330GFH(G/F 30%-reinforced Grade) at 190 °C

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