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Technical Literature B-05

Thermal Aging Resistance of AURUM®

An accelerated test was conducted to evaluate the long-term thermal stability (thermal aging resistance) of AURUM® in a high-temperature atmosphere above Tg (250ºC).

The Table below shows changes in the tensile properties (retention percentage) and weight loss of AURUM® resins (non-crystalline and crystalline) at 230ºC.

Thermal Aging Resistance of AURUM® (%)

Non-crystalline		230ºC			
		100 hrs	500 hrs	1,000 hrs	2,000 hrs
Retention percentage	Tensile strength at yield point	110	115	115	115
	Tensile strength at break	90	85	90	100
	Tensile strength at elongation	90	65	45	45
	Tensile modulus	105	105	110	110
	Weight loss	0.1>	0.1>	0.1>	0.1>

Crystalline		230ºC			
		100 hrs	500 hrs		2,000 hrs
Retention percentage	Tensile strength at break	90	85		100
	Tensile strength at elongation	90	65		45
	Tensile modulus	105	105		110
	Weight loss	0.1>	0.1>		0.1>