

Toralloy® MR-502 (low- moisture PAI)

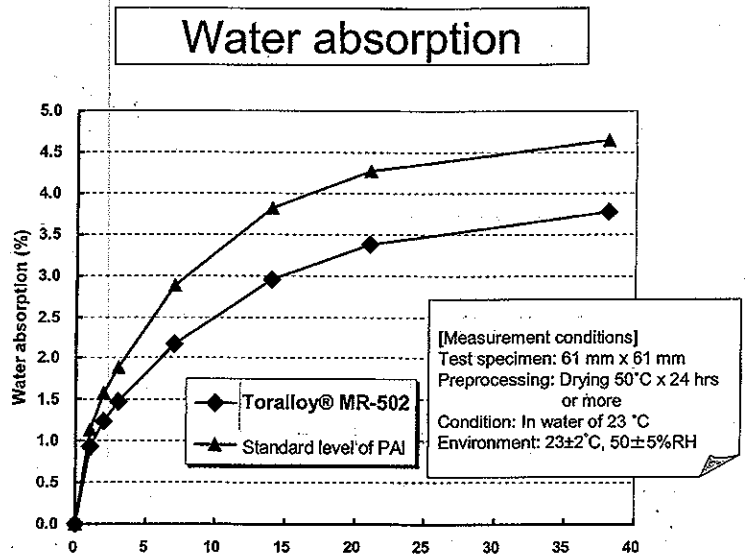
Toralloy® MR-502 PAI - The First Moisture-Resistant Polyamide-imide PAI Material.

Toralloy® MR-502 is a proprietary PAI material designed to offer superior dimensional stability and lower moisture absorption properties. Production of IC test sockets require long-term stability for fine pitch hole placement. Continual improvements in IC design have created a growing need for advanced materials that provide improved dimensional stability across various environments. Competing PAI materials such as Torlon® suffer from high-moisture absorption rates which make the product unsuitable for steam, autoclave and other high-moisture environments. The high-moisture absorption rate of Torlon® creates challenges for manufacturers of IC Test Sockets because as the material absorbs moisture, it also loses its dimensional stability. Toralloy® MR-502 contains a proprietary inorganic filler that reduces moisture absorption resulting in a drastic reduction in dimensional changes.

Typical Properties of Toralloy® MR-502

Property	Test Method	Unit	Toralloy® MR-502
Tensile Strength	527-1,2	MPa	135
Tensile Elongation	527-1,2	%	2.8
Flexural Strength	178	MPa	244
Flexural Modulus of Elasticity	178	GPa	6.6
Charpy Impact Test Result (notched)	179/1eA	KJ/m2	7.7
Density (specific gravity)	1183	g/cm3	1.50

Table above reflects typical values, not guaranteed values



Typical Applications:

IC Sockets, Handlers, Nests and Ball Grids Array Jigs in the processing, assembly and testing of semiconductors. Also suitable for heat insulators, seals, valve components, bushings, instrument housings for down-hole oil well data logging tools.

Toralloy® is a registered trademark of Professional Plastics, Inc.
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