

Remington Arms Company Ins Research & Development Technical Center 315 West Ring Road Euzabethtown, KY 42701

Solvent testing is performed to insure that commonly used firearms cleaning products, lubricants and other chemicals that might reasonably be expected to come into contact with the product during manufacture or use will not cause damage to the products surface finish or dimensional stability. Tests will be conducted in accordance with ASTM D543-87, which calls for 24-hour immersion in solvents followed by a property evaluation. Hardness or stiffness is the property measured for this test, either quantitatively are qualitatively (where quantitative measurements were impractical). Solvent effects in polymers range from no effect to complete decomposition. Parts that absorb solvents may permanently discolor, crack, craze, or otherwise display failures. The parts also may simply take up solvent when immersed and yield the solvent back when exposed to air with no other property change other than temporary modulus (stiffness) reduction. To support this observation, it is often helpful to separate parts by their amount of solvent uptake, so that the large solvent uptake parts can be more carefully examined.

For the Model 710 Design Acceptance Test a list of synthetic materials used in the product was reviewed. With one exception the synthetic materials used in this design lesting were previously completed on the materials when used in other product lines and therefore more repeated for this test. Only the Receiver Insert material was not previously tested it was however similar to the material used in the Bolt Plug and therefore was not tested.

Component	Material Specification	Comments
Magazine Latch	Ultem 1000	Same material as M/597 Magazine Box – Birchwood Casey Gun Scrubber will destroy part.
Bolt Plug	Nylon 6, 6 33% Glass-filled	Note: material changed from original specification of Polypropylene, 15% Glass-filled, Chemically Coupled.
Magazine Box Bottom	Polypropylene, 15% Glass Filled. Chemically Coupled	Same material as M/597 Stock, steel nose insert molded into bolt plug, brass spring retainer ultrasonically welded.
Follower	Polypropylene, 15% Glass Filled, Chemically Coupled	Same material as M/597 Stock, steel nose insert molded into bolt plug, brass spring retainer ultrasonically welded.

Stock Polypropylene, 15% Glass Filled, Same material as M/597 Stock, steel

an 2001 Design Acceptance Test Remington M:710 Centerfire Rifle;
R & D Technical Center Project No. 241030; TLW 0100

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