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**HEAT SHRINKABLE BOOT SHELF LIFE**

Glenair offers a number of heat-shrinkable boot materials in the Series 77 Shrink Boot range. The shelf life of the boots (without adhesive pre-coating, see document on "Heat Shrink Boot Adhesive Shelf Life") is described below for each type. The shelf life is determined by there being no degradation of the materials properties from original specification and the dimensions both expanded and recovered being to the specification control drawing. The specified times depend on the storage being under normal ambient which means below 35°C and not in direct sunlight. Attention should be made as to transport because it is known that containers in direct sunlight can reach temperatures of 50°C. This will not affect the properties of the materials but may cause a limited amount of recovery to occur depending on the length of time the boots are exposed to high temperatures. This is especially relevant to type 2, 7 and 9 materials and small size boots.

**MATERIALS**

**Type 1 & 2: 5 years**

The shelf life of these boots, when stored under ambient conditions (below 35°C), is part of the qualification to the German VG 95343 qualification for 2025 Type 1 material and 2010 Type 2 material. Material in this specification has to meet 100% of the specified values for strength and performance after 5 years.

**Type 3 & 7: 4 years**

The shelf life under the same storage conditions for 2040 Type 3 material and 2071 Type 7 materials are given in MIL-I-81765 and is 4 years.

**Type 5 & 6: 4 years**

The shelf life for 2050 Type 5 material and 2051 Type 6 materials are not specified in any military specification. Accelerated aging tests carried out by Glenair give a shelf life of greater than 4 years.

**Type 8: 4 years**

This material is not qualified to any International Specification and Glenair accelerated ageing shows the material will meet at least 5 years shelf life and we have therefore given it a 4 year life.

**Type 9: 2 years**

This material has a very low shrink temperature and will start to show recovery at 35°C and because of this the shelf life is restricted to 2 years.

**The times given for each material are from when the customer receives the parts.** The parts may have other codes on the packaging indicating dates when the parts were either packed or manufactured. However this does not change the shelf life specified by Glenair which applies from when the parts are shipped. During any holding time the parts are held, the storage conditions are strictly controlled.

David Crofts

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