Australian Standard™

AS 3572.5

Plastics—Glass filament reinforced plastics (GRP)—Methods of test

Method 5: Determination of hoop tensile strength of wound glass filament reinforced plastics pipes

1 SCOPE

This Standard sets out a method for determining the hoop tensile strength of filament wound pipes.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1349	Bourdon tube pressure and vacuum gauges
3572	Plastics — Glass filament reinforced plastics (GRP) — Methods of test
3572.1	Method 1: Preparation of glass filament reinforced plastics test specimens
3572.4	Method 4: Determination of the dimensions of glass filament reinforced plastics pipes

3 APPARATUS.

The following is required:

(a) *Pressurizing system* A hydraulic system capable of producing a pressure that will burst the pipe under test. A hydraulic accumulator or pump may be used for this purpose.

(b) *End connections* Fittings that will make a watertight connection to the test specimen and to the pressurizing system. Three types of fittings are permitted, as follows:

(i) Caps, provided with ring joints sealing onto the external surface of the test specimen and connected to one another by a metal rod allowing some longitudinal movement at the ends of the test specimen. Pressure is applied through one cap end, or through the connecting rod (see Figure 1(a)).

(ii) Metal plugs provided with ring joints sealing onto the internal surface of the test specimen and connected to one another by a metal rod with a central bore, allowing some longitudinal movement at the ends of the test specimen (see Figure 1(b)).

(iii) End caps, or end plugs, incorporating standard joint couplings (see Figure 1(c)).