6 FASTENERS AND ADHESIVES

6.1 GENERAL

6.1.1 Scope

1 This part deals with the specification of fasteners and adhesives.

2 Related Sections are as follows:

This Section

Part 1..... General
Part 2..... Framing furring and blocking
Part 3..... Wood doors
Part 4..... Architectural timbers
Part 5..... Joinery

6.1.2 References

1 The following standards are referred to in this Part:

BS 729.....Specification for hot dip galvanized coatings on iron and steel articles (ISO 1461 Hot dip galvanized coatings on fabricated iron and steel articles — Specifications and test methods)

BS 1202.....Specification for nails

BS 1204.....Synthetic resin adhesives (phenolic and aminoplastic) for wood; (BS 1204-1 Synthetic resin adhesives (phenolic and aminoplastic) for wood - Specification for gap-filling adhesives: EN 301 Adhesives, phenolic and aminoplastic, for load-bearing timber structures - Classification and performance requirements; BS 1204-2 Synthetic resin adhesives (phenolic and aminoplastic) for wood - Specification for close-contact adhesives: EN 302-1 Adhesives for load-bearing timber structures - Test methods - Part 1: Determination of longitudinal tensile shear strength; EN 302-2 Adhesives for load-bearing timber structures - Test methods - Part 2: Determination of resistance to delamination; EN 302-3 Adhesives for load-bearing timber structures - Test methods - Part 3: Determination of the effect of acid damage to wood fibres by temperature and humidity cycling on the transverse tensile strength; EN 302-4 Adhesives for load-bearing timber structures - Test methods - Part 4: Determination of the effects of wood shrinkage on the shear strength)

BS 1210.....Wood screws

6.2 FASTENERS

6.2.1 Nails and Screws

1 Nails and screws are to comply with BS 1202, Part 1 and BS 1210 respectively.

6.2.2 Fastenings

1 Fastenings in external areas are to be sheradised, galvanised or non-ferrous.

2 Nails are not to be less than 25 mm long or 2½ times the thickness of the member through which the nails are being driven, whichever is the greater.

3 Screws are not be less than 12 mm long or twice the thickness of the member through which the screws are being driven, whichever is the greater.

4 Regardless of the specified minimum lengths, nails and screws are not to be longer than the total thickness of the members being joined, less 5 mm.

5 Nail heads should be punched, and screw heads not required to be pellated to be countersunk, not less than 2 mm below surfaces which will be visible in the finished work, the holes filled with putty or a proprietary filler and sanded smooth and flush.

6 Plugs for screw fastenings into blockwork or concrete are to be of proprietary manufactured sized to suit the screw. Wooden plugs will not be permitted.

6.2.3 Pellating

1 Screw heads which are to be pellated are to be countersunk 6 mm below the timber surface. Pellets to be cut from matching timber not less than 6 mm thick, glued in with the grain matched, planed and sanded off flush with the face.

2 Screw heads are to be pellated where the timber surface is to receive a clear finish.

6.3 ADHESIVES

6.3.1 General Requirements

1 Adhesives used in carpentry and joinery work should be synthetic resin adhesives complying with BS 1204, Parts 1 and 2 Type WBP for all external work and Type BR for internal work.

6.4 ROUGH HARDWARE AND FRAME CRAMPS

6.4.1 General

1 This Part specifies fasteners and fastening systems used for Structural Timber construction and within some framing with Architectural woodwork.

6.4.2 Products

1 Cramps to be mild steel size 2 x 25 x 250 mm girth, galvanised after fabrication to BS 729, turned up at one end and drilled twice for 3 mm diameter screws and fishtailed at the other end for building in.

2 Furnish rough hardware, except nails, with a standard plating, applied after punching, forming and assembly of parts. Galvanised anchors and bolts (with nuts and washers), straps, and hangers except bolts may be cadmium plated, or zinc-coated by electro-galvanising process. Aluminium-alloy nails, plated nails, or zinc-coated nails, for nailing woodwork exposed to weather are to be used. Bolt heads and nuts bearing on wood should be fitted with washers. For work exposed to the weather, washers of cast iron, or zinc or cadmium coated steel are to be used. Special nails as required for use with ties, anchors, framing connectors, joint hangers and similar items are to be used in accordance with the item manufacturers instructions or as directed by the Engineer.

3 Joist Ties: Are to be mild steel flats, 5 mm by 32 mm size with ends bent 30 degrees from horizontal, and extending at least 40 mm onto the framing. Each end to be punched for three spikes.

4 Wall anchors for Joists and Rafters: Provide a mild steel strap, 5 mm by 32 mm with wall ends bent 50 mm, or provide 9.5 mm by 127 mm pin through the strap and build into masonry. Provide anchors parallel to framing long enough to extend at least 406 mm onto framing and punch for three spikes. Provide anchors at right angles to framing; long enough to extend onto three joists or rafters, punched for spiking at each bearing.

END OF PART