Quality Assurance

E-Klips™ products are registered for BS EN ISO 9001 and have a comprehensive test and inspection programme so that all comply with our specifications, whether they are of our own manufacture or from a quality approved source. Any further details required on quality are available on request.

Protection against corrosion

The majority of E-Klips™ spring steel fasteners are zinc coated. The clips have a zinc silver coloured sacrificial coating which deposits two layers of zinc and an application of a waterproof topcoat. This gives a high level of protection against first white corrosion and then red rust according to ASTM-B695-90 or equivalent.

The corrosion resistance is measured by a salt spray test conforming to ASTM-B-117-90, DIN 50021 or equivalent. E-Klips™ zinc coated products are salt spray rated to a minimum of 600 hours and are coded F8+.

Key to finishes and applications:

F1 Electroplated zinc finish, generally 8-12 microns thick with chromate coating, approximately 72 hours salt spray resistance ASTM-B117-90, DIN 50021, suitable for indoor, non-corrosive environments.

F2 Galvanised, generally hot dipped to a thickness of 50-70 microns, suitable for indoor and outdoor, humid and mildly corrosive environments.

F3 Stainless steel, suitable for indoor and outdoor and mildly corrosive environments.

F4 Painted finish to compliment indoor applications.

F5 Black phosphate finish in accordance with BS 3189 Class 1 suitable to achieve 72 hours salt spray rating for indoor, non-corrosive environments.

F6 Self colour, unfinished and unprotected product for indoor applications.

F7 Flexible plastic coating with good chemical and corrosion resistance to protect the base material.

F8+ Zinc silver coloured sacrificial coating (Z600+), enhanced by an application of waterproof topcoat giving a corrosion resistance of more than 600 hours, for use in indoor and outdoor humid and mildly corrosive environments. Coating is completely chromium free.

Load Rating

The load rating of E-Klips™ fasteners is expressed as a maximum static load limit. This is the stationary vertical load limit for a fixing product and incorporates a significant safety factor. Where fasteners are combined, the load rating is determined by the lowest rated fastener. If the load rating of the steelwork is less than that of the fastener, this becomes the maximum static load rating for the system. For further information please contact the sales office.

Materials

E-Klips™ products are manufactured using steel in accordance to BS EN 1449 - part 1.15 grade CS70. Furthermore products are annealed and oiled.

All components are hardened and aust tempered using the shaker hearth furnace method to give a final hardness reading of 400-450 HV-10 Vickers.

Warranty and limitations

Thomas & Betts warrants to the buyer that the products sold in this catalogue shall be free of defects in material and workmanship at the time of shipment. Buyers' sole and exclusive remedy under this warranty is limited to repair or replacement, at our option, of the product, or any part or parts thereof, which have been returned to us, with transportation charges prepaid to our factory, and which we determine to have been defective at time of original factory shipment. We disclaim any liability for incidental or consequential damages which may be incurred either by the buyer or user of E-Klips™ fasteners. Thomas & Betts neither assumes or authorises any person to assume for it any obligation in the connection with the sale of the product in excess of the above mentioned warranty and remedy.

Misapplication

E-Klips™ spring steel fasteners are intended for indoor and outdoor use in a mildly corrosive atmosphere and within the published load limits. Thomas & Betts assumes no liability for any misapplication of any fastener. A misapplication of a fastener includes any or all of the following:

a) Use beyond published load limits (see catalogue). (Note: all load ratings, unless specified, are vertical load ratings for normal fastener application).

b) Installation in a manner other than per instructions.

c) Use in an environment which is or might be corrosive.

d) Use in an application not published by Thomas & Betts, as shown in the fasteners product catalogue.

e) Use without compliance with local/national code regulations.

NB: Owing to manufacturing improvements, some fasteners supplied may differ from those illustrated. However, the static loads stated still apply.

This brochure is designed to provide only preliminary information on the E-Klips™ products and services provided by Thomas & Betts and is not a contract.

Disclaimer

The company does not accept any liability for loss or damage arising from failure to follow its instructions in respect of its products or from variations to products not agreed by it.