

## 6 OVERHEAD SUPPORT

**STRUTFAST**

### *E-Klips®* Overview

#### HISTORY

The E-Klips® spring steel fasteners range has been manufactured in the UK for over 25 years. It offers a quick, easy and reliable method of fixing services to steelwork without the need for bracket making, drilling holes or the use of nuts and bolts.

#### REDUCED INSTALLATION

Every E-Klips® spring steel fastener has been developed to reduce installation time. They are simple and easy to install, using a hammer, screwdriver, spanner or pliers.

#### QUALITY ASSURANCE

E-Klips® is registered for BS EN ISO 9001 and has a comprehensive test and inspection programme so that all products comply with our specifications, whether they are of our own manufacture or from a quality approved source. This is to ensure that all order requirements are met. Any further details required on quality are available on request.

#### PROTECTION AGAINST CORROSION

The majority of E-Klips® spring steel fasteners are mechanically zinc plated. The clips are subjected to a process of MECHANICAL GALVANISING, which deposits a layer of zinc to a minimum thickness of 25 microns, followed by a passivation process that organically creates a protective layer in the zinc. This gives a high level of protection against first white corrosion and first 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® mechanically galvanised products are salt spray rated to a minimum of 500 hours and are coded F8 or F9. 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 BS3189 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 Mechanically galvanised and passivate process as described above to give a 500 hour salt spray rating, suitable for indoor and outdoor, humid and mildly corrosive environments.

F9 Mechanically galvanised and passivate process as described above to give a 600 hour salt spray rating, suitable for indoor and outdoor, humid and mildly corrosive environments.

#### F.M.R.C. APPROVAL

F.M. approval indicates that the product has been tested and approved by the Factory Mutual Research Corporation (F.M.R.C.) for use in buildings where fire regulations and environmental concerns would apply.

#### 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 affixing 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 steel work 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® fasteners are manufactured using steel in accordance to BS1449 PT2 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.