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ETP 51

(EXTERNAL TECHNICAL PAPER NUMBER 51)

TAPPEX GENERAL PERFORMANCE DATA

The performance figures shown on the following pages are supplied as a general guide only. We would recommend that they are confirmed by testing using the actual moulding and application conditions, or as near as is practically possible. No responsibility for incorrect insert specification can be accepted as a result of using the attached data.

Any graphical representation of performance has to be for a specific set of circumstances which, by the nature of test work and theoretical assessment, is unlikely to closely approximate the actual mould conditions.

There are a range of parameters that can influence the performance: Exact material grade, hole size, boss diameter, location of hole in moulding, partial thin walls, local mould flow conditions, mould cleanliness, ambient temperature conditions, consistency of installation technique, operator, local friction conditions and many others.

The attached graphs combine internal testing of customer mouldings, and sections of test material, to give a best fit graphical representation of performance.

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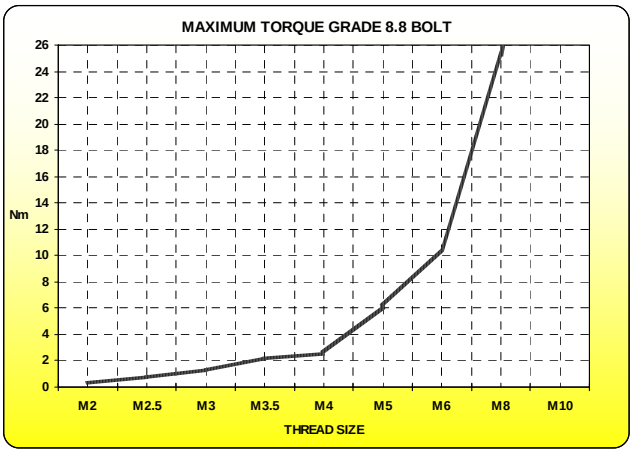
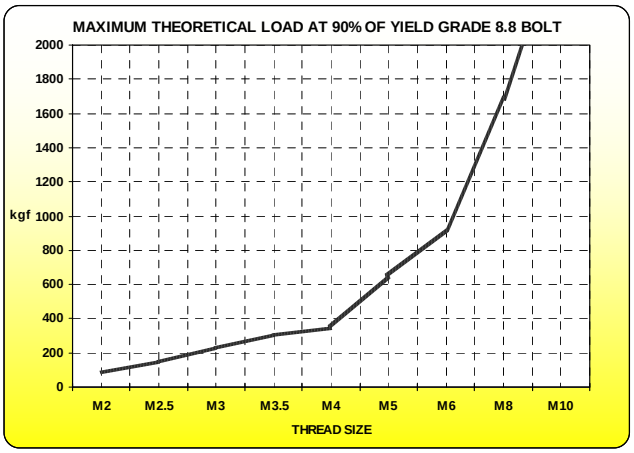
As a guide to the magnitude of the torques and forces normally found in standard metal to metal fastener assemblies, the two graphs below show the maximum recommended tightening torque at 90% of yield for a grade 8.8 steel bolt assuming that friction between the threads and under the head of the bolt is 0.2.

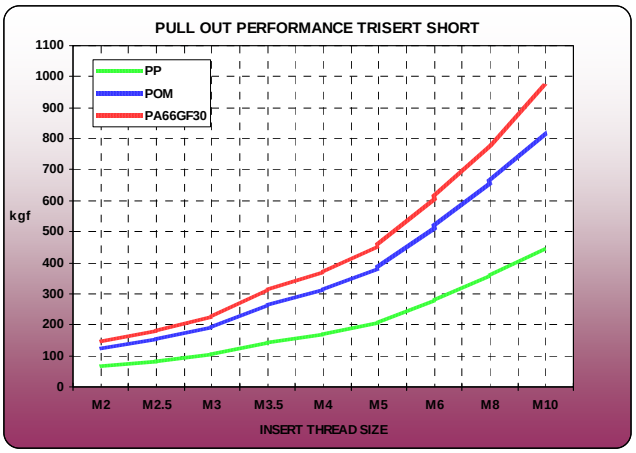
Friction has a very large influence on the load generated by the bolt for a given torque. Low friction will reduce the maximum torque that can be applied, while high friction, coupled with steel mating parts, will increase the maximum torque that can be applied.

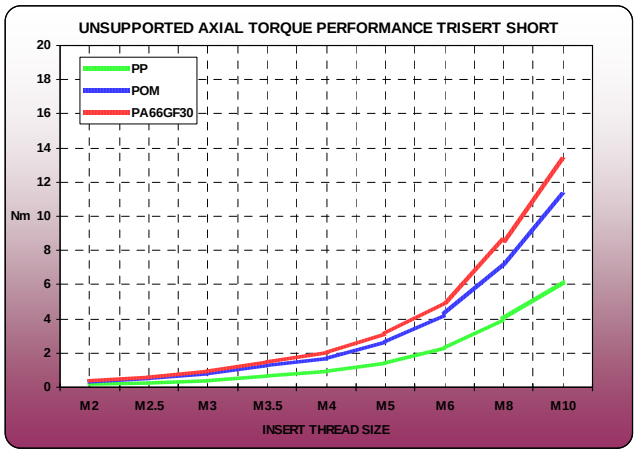


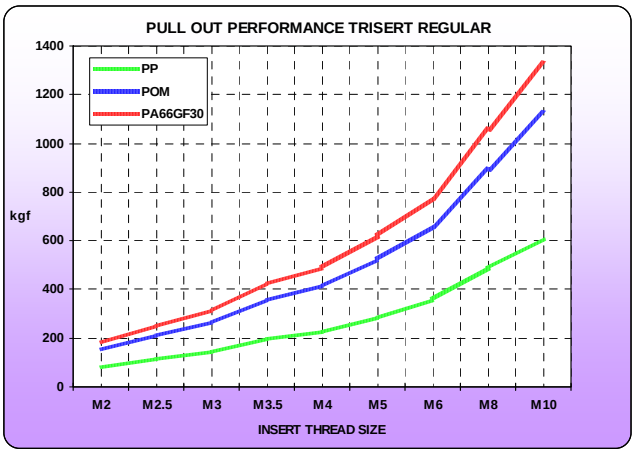


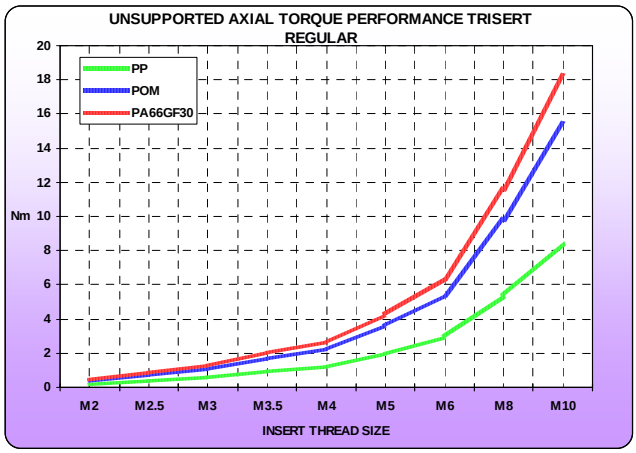
Performance data for Tappex Trisert Self tapping inserts.

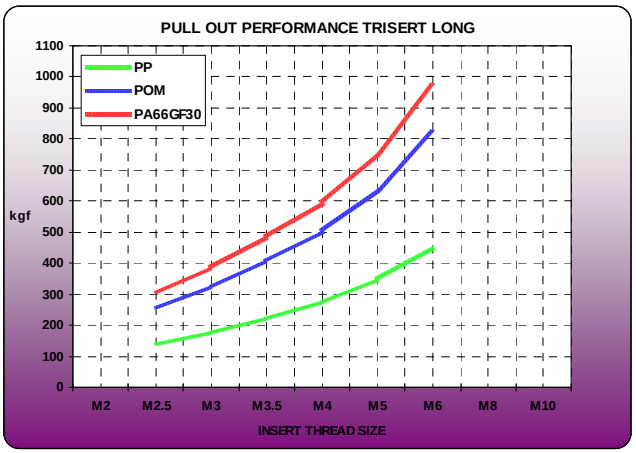
- The performance of an equivalent length headed Trisert insert will be similar but use with care.
- The performance of an equivalent length Trisert-3 into the same materials will be similar but use with care.

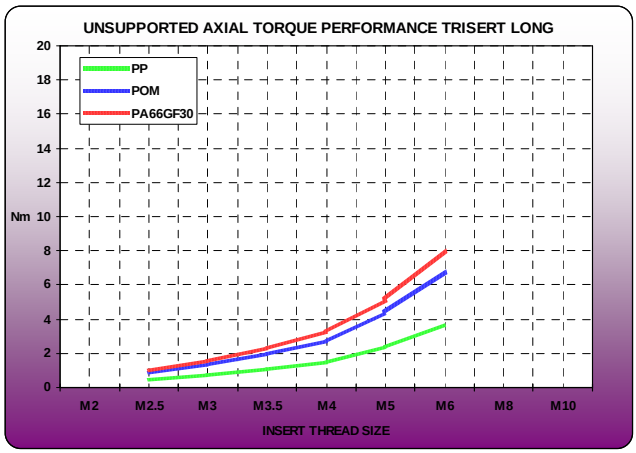








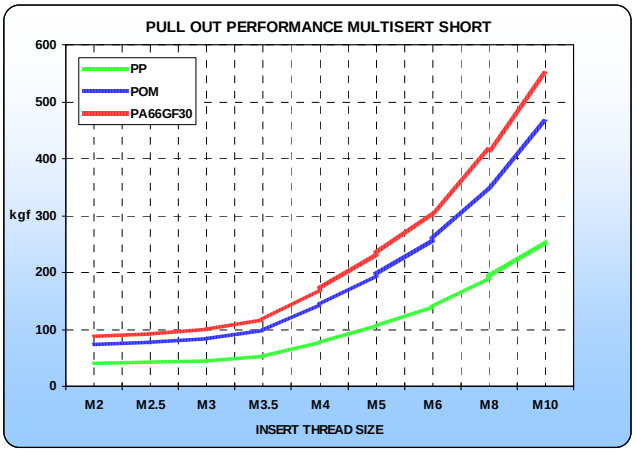


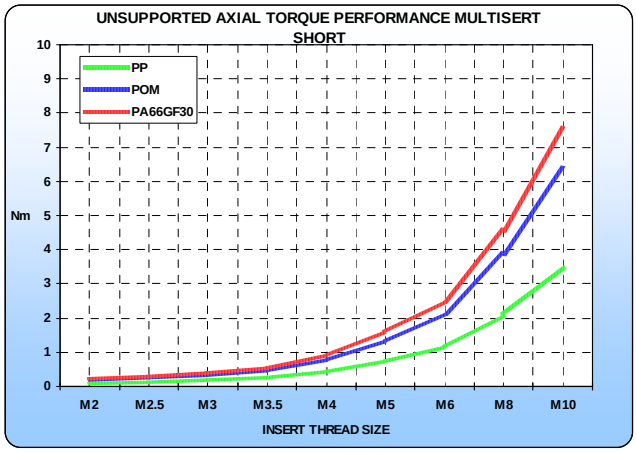


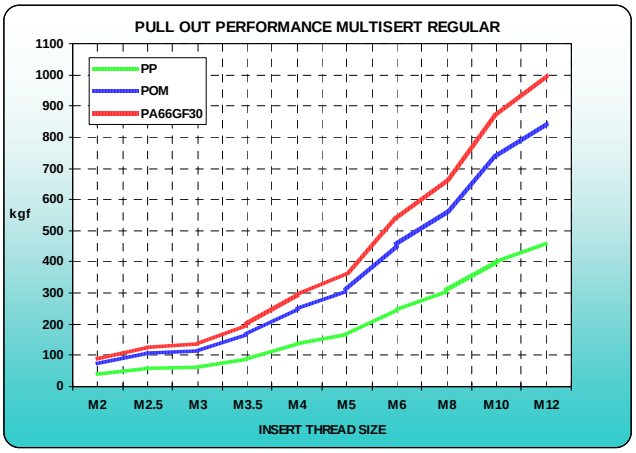
Performance data for HEAT INSTALLED Tappex Multisert inserts.

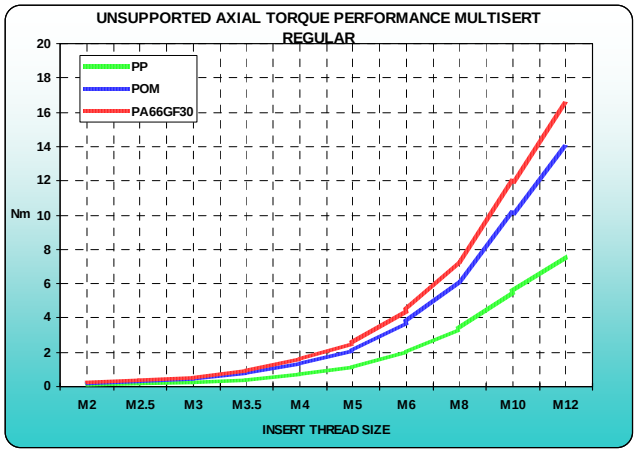
- The performance of an equivalent length headed Multisert insert will be similar but use with care.
- The performance of an Ultrasonically installed Multisert insert will be the same.
- The performance of a cold press installed Multisert insert into PP or POM will normally be slightly less.

(Cold press installation into glass filled plastics including PA66GF30 is not recommended)



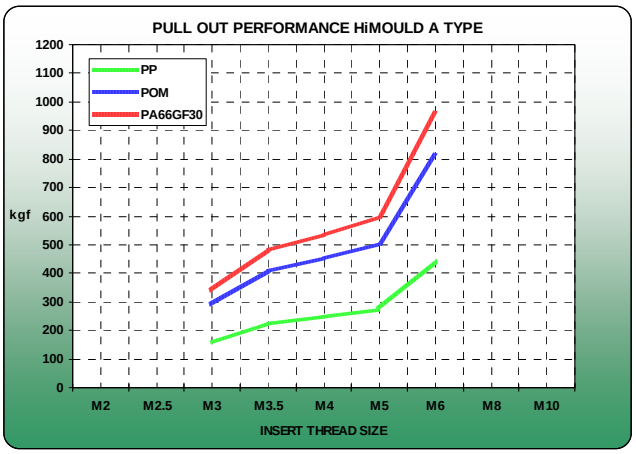


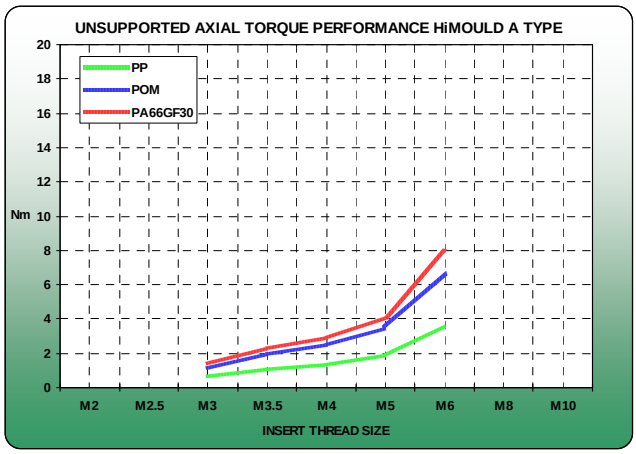


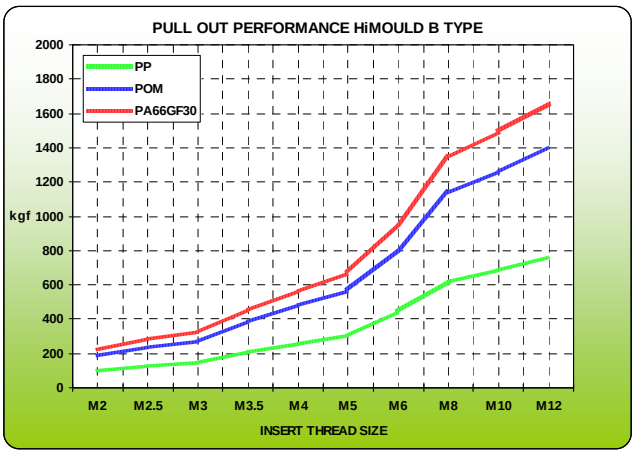


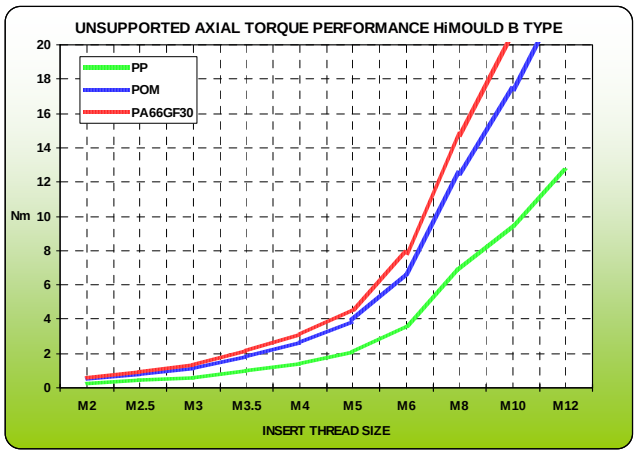
Performance data for Mould-in Tappex HiMould inserts.

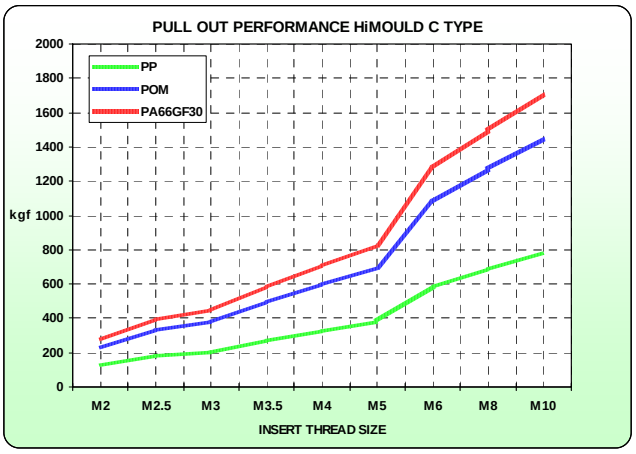
- Due to the limited amount of customer test data available for this type of insert the graphs below are developed from a combination of available data and theoretical calculation, use with care.

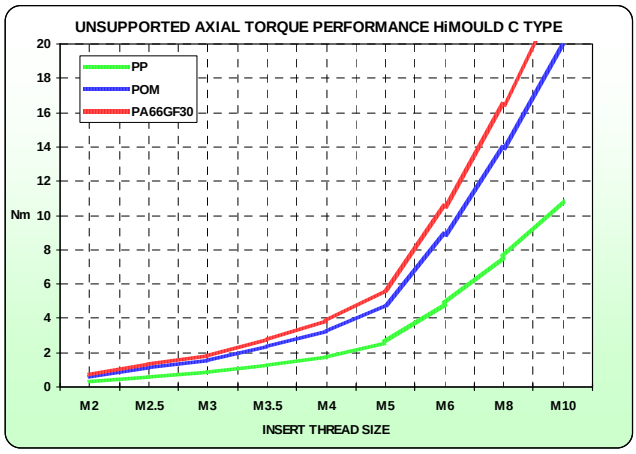












Issue 1 – 12-01-11 **Technical Department.**