



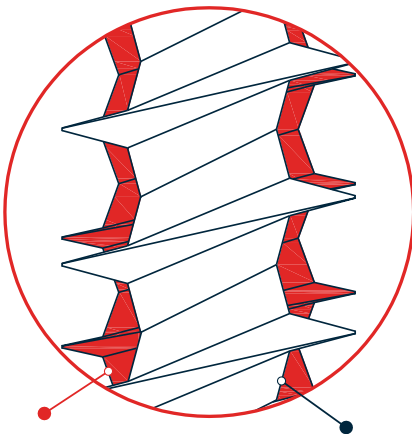
High Performance
Thread Forming Screw for Plastic

POLYMATE20 SCREW

FEATURES AND BENEFITS

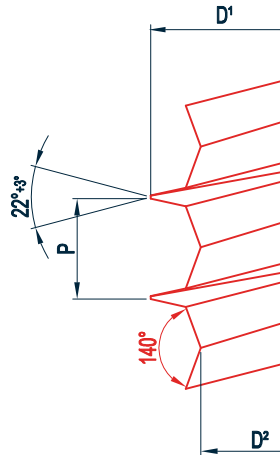
Enhancement when compared with Polymate30:

- The re-designed geometrical flank allows for optimized movement of plastic material while initiating the fastening procedure.
- Under static and dynamic stress, a considerable increase is ensured in the service life of the joint.
- At the same nominal diameter, up to 50% gain in torsional and tensile strength.
- As there is a larger core and reduction in the thread pitch length, shorter fasteners and/or smaller diameters may be used.
- Improved pitch provides added vibrational safety.



Polymate20 Screw

Polymate30 Screw



FEATURES AND BENEFITS

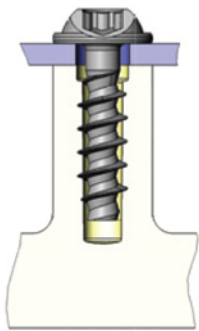
SOMETIMES SMALLER IS BETTER

The visuals below show the advantages of a reduced fastener length and diameter by comparing Polymate30 to Polymate20.

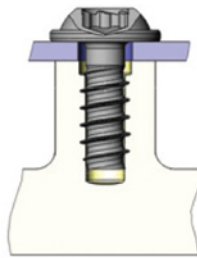
Substitute A provides a reduction in length, whereas Substitute B provides a reduction in diameter.

For both scenarios, the reduction in pitch from the Polymate20 provides a maintained thread flank.

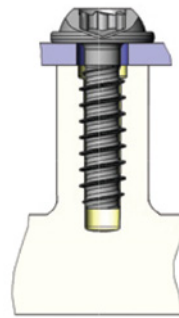
Thus, allowing for material cost savings as the boss diameters or heights are reduced without a decrease in joint performance.



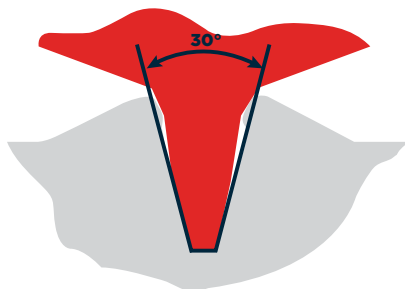
Initial Situation
Polymate30 // 50x16



Substitute A
Polymate20 // 50x12



Substitute B
Polymate20 // 40x16



- Polymate30 thread flank
- Polymate20 thread flank
- Thermoplastic material

Prevention of Material Deformation

Advanced developments in flank design ensure optimal thread forming without damaging the material. Detailed analysis of thread forming and its disposition of material allowed for the creation of optimized flank geometry. Lowest resistance is observed during material deformation, which in return prevents frictional heating.