

Miles Platts Tolerance Guide

This guide relates to Miles Platts catalogue items. Tolerances are in line with DIN16742 and are dependent upon a number of factors.

Factors affecting tolerances,

-) The polymer selection and its' glass content
-) The tolerance band is appropriate to the nominal dimension
-) The temperature & humidity of parts being measured
-) Glass filled engineering polymers are anisotropic and shrink at different rates across different axis
-) Where the tool splits and whether the dimension is formed by a solid core or a moving part of the tool
-) Which tolerance group being applied which is calculated from a number of factors. Miles Platts catalogue items generally fall into TG6 tolerance group

Other considerations for tolerance guidelines,

-) Measurement points may have draft applied and therefore will vary across a surface
-) Consideration should be given to radii on edges and internal corners (A)
-) Glass filled engineering polymer distorts- unsupported features will toe inwards (A1)

DIN16742:2013-10 Table 2 extract- limit dimensions for nominal size ranges (TG6, non-tool specific dimensions) .Tolerance limit dimensions are intended for linear dimensions only.

Tolerance Group	Limit dimensions for nominal size ranges (mm)								
	1 - 3	>3 - 6	>6 - 10	>10 - 18	>18 - 30	>30 - 50	>50 - 80	>80 - 120	>120 - 250
TG6	± 0.12	± 0.18	± 0.22	± 0.26	± 0.31	± 0.37	± 0.57	± 0.80	± 1.05

Dimension A can vary if measured at the intersection of the flange to the tube or at the extremity A1 due to distortion. Due to draft D dimension may vary along its' length. E & F are normally formed from a parallel core- but not always. B & C dimensions may have tool split line witness and radii which need to be taken into consideration.

Please contact Miles Platts technical sales if you require any further information.

