

# Production tolerances

## transparent plastics / technical plastics

following DIN ISO 2768-1 solely for machining

Production tolerances stated refer to further processing by noltewerk. If subsequent processing of semi-finished products does not take place at noltewerk the production tolerances of such semi-finished products may vary from the noltewerk production tolerances.

In case of sub-measures (measuring chain) each individual tolerance is added to the overall measure (e.g. from  $\pm 0.3$  /  $\pm 0.3$  to  $\pm 0.6$  mm).

Plastics reset after beveling process. This may be influenced by external factors. For beveled parts tolerances according to DIN apply to outer measurements and angles.

Further information: Tolerances stated in the table are provided from factory with products being manufactured at room temperature. If workpieces are subjected to temperature fluctuations during transport or storage such will result in larger deviations than those stated according to DIN ISO 2768. In this case the material is to be brought to room temperature (acclimatised) for at least 24 hours upon delivery. Due to the greater thermal expansion coefficient of plastics, in comparison to metals, even a temperature difference of 5 to 10° impacts on dimensional accuracy of a component.

### Limits length

length [mm]	tolerances follow DIN ISO 2768-m [mm]
$\geq 0.5$ – $\leq 3.0$	$\pm 0.1$
$> 3.0$ – $\leq 6.0$	$\pm 0.1$
$> 6.0$ – $\leq 30.0$	$\pm 0.2$
$> 30.0$ – $\leq 120.0$	$\pm 0.3$
$> 120.0$ – $\leq 400.0$	$\pm 0.5$
$> 400.0$ – $\leq 1.000$	$\pm 0,8$
$> 1.000$ – $\leq 2.000$	$\pm 1.2$
$> 2.000$ – $\leq 4.000$	$\pm 2.0$

### Limits angle / Length upon bevelling

side [mm]	tolerance angle	tolerance length [mm]
0 – $\leq 10.0$	$\pm 1^\circ$	$\pm 1$
$> 10.0$ – $\leq 50.0$	$\pm 1.5^\circ$	$\pm 1$
$> 50.0$ – $\leq 120.0$	$\pm 1.5^\circ$	$\pm 1.5$
$> 120.0$ – $\leq 400.0$	$\pm 2^\circ$	$\pm 1.5$
$> 400.0$	$\pm 2^\circ$	$\pm 2$

### Limits for curve radius and bevel height

nominal dimension [mm]	tolerance DIN ISO 2768-m [mm]
$\geq 0.5^{**}$ – $\leq 3.0$	$\pm 0.2$
$> 3.0$ – $\leq 6.0$	$\pm 0.5$
$> 6.0$	$\pm 1.0$

\*\* Limits for nominal dimensions  $\leq 0.5$  mm are to be stated directly by respective nominal dimension.

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