

SPECIFICATIONS

Dimensional and geometrical accuracy according to DIN 5401:2002-08

Class (Grades)	DW Nominal dimensions in mm		Vdws in μm max.	Ra in μm max.	Vdwl in μm max.	Vdwa in μm max.	Border- dimensions in μm	Variety range and classification in μm			IG/ST in μm
	at	to									
G3	--	12,7	0,08	0,01	0,13	--	$\pm 5,32$	-5 bis -0,5	0	+0,5 bis +5	0,5
G5	--	12,7	0,13	0,014	0,25	--	$\pm 5,63$	-5 bis -1	0	+1 bis +5	1
G10	--	25,4	0,25	0,02	0,5	--	$\pm 9,75$	-9 bis -1	0	+1 bis +9	1
G16	--	25,4	0,4	0,025	0,8	--	$\pm 11,40$	-10 bis -2	0	+2 bis +10	2
G20	--	38,1	0,5	0,032	1,0	--	$\pm 11,50$	-10 bis -2	0	+2 bis +10	2
G28	--	50,8	0,7	0,05	1,4	--	$\pm 13,70$	-12 bis -2	0	+2 bis +12	2
G40	--	100	1	0,06	2,0	--	$\pm 19,00$	-16 bis -4	0	+4 bis +16	4
G80	--	100	2	0,1	--	4,0	$\pm 14,00$	-12 bis -4	0	+4 bis +12	4
G100	--	150	2,5	0,1	5,0	--	$\pm 47,50$	-40 bis -10	0	+10 bis +40	10
G200	--	150	5	0,15	10,0	--	$\pm 72,50$	-60 bis -10	0	+10 bis +60	10

Dw = nominal diameter of the ball

The diameter value used for the general designation of a ball size.

Ra = Surface roughness

Standard deviations from a geometrically perfect surface, whereby form deviation and waviness are not taken into account.

Note: The limits given in the table refer to the arithmetic mean of the deviation of the roughness profile from the mean line (Ra).

Vdwa = Variation of the ball diameter in a variety

Difference between largest and smallest average ball diameter Dwm in one grade.

Note: The parameter applies only to balls of classes G300 to G700 and G80.

Dwm = average diameter of a sphere

Arithmetic mean of largest and smallest single diameter Dws of a sphere.

Dws = single diameter of a sphere

Distance between two parallel planes that touch ball surface.