Datenblatt | Data sheet

Quality classes

Conversion from DIN 5401 old (edition 1/1978) to DIN 5401 new (ISO modified).

An absolutely identical conversion from "old" to "new" is not possible. The comparison shown in the table below provides the closest possible approximation, which is usually sufficiently accurate.

DIN 5401 old						DIN 5401 new					
KL	D_W (mm) über	D_W (mm) bis	V_{3DWS} µm	I_G µm	V_{DWA} µm	Grade	V_{DWS} µm	V_{3DWS} [1] µm	I_G µm	V_{DWL} µm	V_{DWA} µm
KLI	–	10	0,25	0,5	0,5	G5	0,13	0,25	1	0,25	–
KL.II	–	25	0,5	1	1	G10	0,25	0,5	1	0,5	–
KLIII	–	25	1	2	2	G20	0,5	1	2	1	–
	25	50	1,5	3	3	G28	0,7	1,4	2	1,4	–
	50	75	2	4	4	G40	1	2	4	2	–
	75	100	2,5	5	5	G40	1	2	4	2	–
	100	125	3	6	6	G100	2,5	5	10	5	–
	125	150	3,5	7	7	G100	2,5	5	10	5	–
KLIV	–	10	2	4	4	G40	1	2	4	2	–
KLV	–	25	25	50	50	G500 [2]	13	25	50	–	50
	25	50	38	75	75		19	38	75	–	75
	50	75	50	100	100		25	50	100	–	100
	75	100	63	125	125		32	63	125	–	125
	100	125	75	150	150		38	75	150	–	150
	125	150	88	175	175		44	88	175	–	175
KLVI	alle		–	400	400	G600 [2]	–	–	–	–	400
KLVII	alle		–	~	–	G700 [2]	–	–	–	–	2000

[1] or spheres up to G100, values derived from "Deviation from spherical shape" for comparison purposes.
[2] Not defined in ISO 3290.

D_w — Nominal diameter of the ball

VD_{ws} — Variation of the ball diameter
Difference between largest and smallest single diameter D_{ws} of a ball

I_G — Sorting interval
Value into which the permissible deviation of the nominal diameter of a ball is evenly divided

VD_{wA} — Variation of ball diameters in a grade
Difference between the largest and smallest mean ball diameter D_{wm} in a grade
(Parameter valid only for balls of classes G80 and G300 to G700)

VD_{wL} — Variation of ball diameters in a lot
Difference between the largest and smallest mean ball diameter D_{wm} in a lot
(Parameter valid only for balls of classes G80 and G300 to G700)

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