

OVERVIEW FOR TOLERANCES IN RUBBER TECHNOLOGY

according to ISO 3302-1

TOLERANCES FOR INNER DIMENSIONS OF EXTRUSION PARTS MADE ON THORN				
Nominal dimension		EN1	EN2	EN3
over	up to	Tolerances in mm, ±	Tolerances in mm, ±	Tolerances in mm, ±
0	– 4.0	± 0.20	± 0.20	± 0.35
> 4.0	– 6.3	± 0.20	± 0.25	± 0.40
> 6.3	– 10.0	± 0.25	± 0.35	± 0.50
> 10.0	– 16.0	± 0.35	± 0.40	± 0.70
> 16.0	– 25.0	± 0.40	± 0.50	± 0.80
> 25.0	– 40.0	± 0.50	± 0.70	± 1.00
> 40.0	– 63.0	± 0.70	± 0.80	± 1.30
> 63.0	– 100.0	± 0.80	± 1.00	± 1.60
> 100.0	– 160.0	± 1.00	± 1.30	± 2.00
		Tolerances in %, ±	Tolerances in %, ±	Tolerances in %, ±
> 160.0		± 0.6%	± 0.8%	± 1.2%

TOLERANCES FOR THE OUTER DIMENSIONS OF SHIPPED EXTRUSION PARTS				
Nominal dimension		EG1	EG2	
over	up to	Tolerances in mm, ±	Tolerances in mm, ±	
0	– 10.0	± 0.15	± 0.25	
> 10.0	– 16.0	± 0.20	± 0.35	
> 16.0	– 25.0	± 0.20	± 0.40	
> 25.0	– 40.0	± 0.25	± 0.50	
> 40.0	– 63.0	± 0.35	± 0.70	
> 63.0	– 100.0	± 0.40	± 0.80	
> 100.0	– 160.0	± 0.50	± 1.00	
		Tolerances in %, ±	Tolerances in %, ±	
> 160.0		± 0.3%	± 0.5%	

TOLERANCES FOR THE WALL THICKNESSES OF GROUND EXTRUSION PARTS				
Nominal dimension		EW1	EW2	
over	up to	Tolerances in mm, ±	Tolerances in mm, ±	
0	– 4.0	± 0.10	± 0.20	
> 4.0	– 6.3	± 0.15	± 0.20	
> 6.3	– 10.0	± 0.20	± 0.25	
> 10.0	– 16.0	± 0.20	± 0.35	
> 16.0	– 25.0	± 0.25	± 0.40	

Information is subject to change, technical specification without guarantee.

TOLERANCES FOR CUT LENGTHS OF EXTRUSION PARTS				
Nominal dimension		L1	L2	L3
over	up to	Tolerances in mm, ±		Tolerances in mm, ±
0	– 40.0	± 0.7	± 1.0	± 1.6
> 40.0	– 63.0	± 0.8	± 1.3	± 2.0
> 63.0	– 100.0	± 1.0	± 1.6	± 2.5
> 100.0	– 160.0	± 1.3	± 2.0	± 3.2
> 160.0	– 250.0	± 1.6	± 2.5	± 4.0
> 250.0	– 400.0	± 2.0	± 3.2	± 5.0
> 400.0	– 630.0	± 2.5	± 4.0	± 6.3
> 630.0	– 1000.0	± 3.2	± 5.0	± 10.0
> 1000.0	– 1600.0	± 4.0	± 6.3	± 12.5
> 1600.0	– 2500.0	± 5.0	± 10.0	± 16.0
> 2500.0	– 4000.0	± 6.3	± 12.5	± 20.0
		Tolerances in %, ±		Tolerances in %, ±
> 4000.0		± 0.16%	± 0.32%	± 0.50%

TOLERANCES FOR MOULDING ARTICLES (soft rubber)									
Nominal dimension		Class M1, very fine		Class M2, fine		Class M3, medium		Class M4, rough	
		Dimensions bound to shape	Dimensions with budding	Dimensions bound to shape	Dimensions with budding	Dimensions bound to shape	Dimensions with budding	Dimensions bound to shape	Dimensions with budding
over	up to	Tolerances in mm, ±		Tolerances in mm, ±		Tolerances in mm, ±		Tolerances in mm, ±	
0	– 6.3	0.10	– 0.10	0.15	– 0.25	0.25	– 0.40	0.50	– 0.50
> 6.3	– 10.0	0.10	– 0.15	0.20	– 0.30	0.30	– 0.50	0.70	– 0.70
> 10.0	– 16.0	0.15	– 0.20	0.20	– 0.40	0.40	– 0.60	0.80	– 0.80
> 16.0	– 25.0	0.20	– 0.20	0.25	– 0.50	0.50	– 0.80	1.00	– 1.00
> 25.0	– 40.0	0.20	– 0.25	0.35	– 0.60	0.60	– 1.00	1.30	– 1.30
> 40.0	– 63.0	0.25	– 0.35	0.40	– 0.80	0.80	– 1.30	1.60	– 1.60
> 63.0	– 100.0	0.35	– 0.40	0.50	– 1.00	1.00	– 1.60	2.00	– 2.00
> 100.0	– 160.0	0.40	– 0.50	0.70	– 1.30	1.30	– 2.00	2.50	– 2.50
		Tolerances in %, ±		Tolerances in %, ±		Tolerances in %, ±		Tolerances in %, ±	
> 160.0		0.3%	– 0.4%	0.5%	– 0.7%	0.8%	– 1.3%	1.5%	– 1.5%

TOLERANCES FOR PROFILES AND HOSES O.E. (soft rubber)				
Nominal dimension		Class E1	Class E2	Class E3
over	up to	Tolerances in mm, ±		
0	– 1.5	± 0.15	± 0.25	± 0.40
> 1.5	– 2.5	± 0.20	± 0.35	± 0.50
> 2.5	– 4.0	± 0.25	± 0.40	± 0.70
> 4.0	– 6.3	± 0.35	± 0.50	± 0.80
> 6.3	– 10.0	± 0.40	± 0.70	± 1.00
> 10.0	– 16.0	± 0.50	± 0.80	± 1.30
> 16.0	– 25.0	± 0.70	± 1.00	± 1.60
> 25.0	– 40.0	± 0.80	± 1.30	± 2.00
> 40.0	– 63.0	by arrangement	± 1.60	± 2.50
> 63.0	– 100.0	by arrangement	± 2.00	± 3.20

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TOLERANCES FOR PLATES, BLANKS AND PUNCHED ARTICLES

according to DIN 7715 part 5

Nominal dimension		Class P1	Class P2	Class P3
over	bis	Tolerances in mm, ±	Tolerances in mm, ±	Tolerances in mm, ±
0	– 1.6	± 0.20	± 0.20	± 0.40
> 1.6	– 4.0	± 0.20	± 0.30	± 0.40
> 4.0	– 6.3	± 0.20	± 0.40	± 0.50
> 6.3	– 10.0	± 0.30	± 0.50	± 0.60
> 10.0	– 25.0	± 0.30	± 0.60	± 0.80
> 25.0	– 40.0	± 0.40	± 0.80	± 1.00
> 40.0	– 63.0	± 0.50	± 1.00	± 1.50
> 63.0	– 100.0	± 0.60	± 1.20	± 2.00
> 100.0	– 160.0	± 0.80	± 1.40	± 2.50
> 160.0	– 250.0	± 1.00	± 1.60	± 3.00
> 250.0	– 400.0	± 1.60	± 2.50	± 5.00
> 400.0		Tolerances in %, ±	Tolerances in %, ±	Tolerances in %, ±
		0.5%	0.8%	1.5%

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