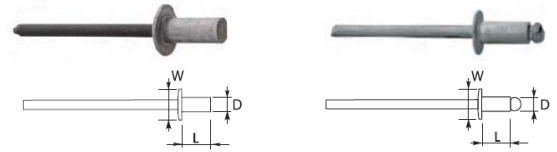


RIVETS

OPEN-END AND CLOSE-END

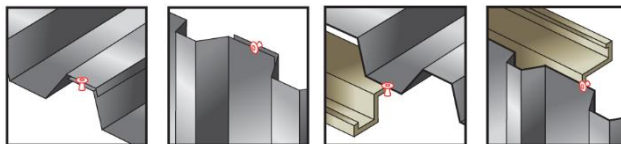


PRODUCT DESCRIPTION

Open-end aluminum rivets with carbon steel head. Closed-end aluminum rivets with carbon steel shank.
Aluminum open-end rivets with stainless steel shank. Aluminum closed-end rivets with austenitic steel shank.
Open-end stainless steel with stainless steel head. Close-end stainless steel with stainless steel head.

APPLICATION

Close-end rivets are designed for waterproof fastening of different elements made of steel sheet or aluminum.
Open-end rivets are designed for economical fastening of different elements made of steel sheet or aluminum inside buildings



LENGTH OF SCREWS

Open end rivet aluminum – steel

Type	Łącznik		
	Dimensions	Length	Head dimm
	D	L	W
	[mm]	[mm]	[mm]
PN0124060PL	2,4	6	max. 5
PN0124080PL	2,4	8	max. 5
PN0124100PL	2,4	10	max. 5
PN0124120PL	2,4	12	max. 5
PN0132060PL	3,2	6	max. 6,7
PN0132080PL	3,2	8	max. 6,7
PN0132100PL	3,2	10	max. 6,7
PN0132120PL	3,2	12	max. 6,7
PN0132140PL	3,2	14	max. 6,7
PN0140080PL	4,0	8	max. 8,4
PN0140100PL	4,0	10	max. 8,4
PN0140120PL	4,0	12	max. 8,4
PN0140140PL	4,0	14	max. 8,4
PN0140160PL	4,0	16	max. 8,4
PN0148080PL	4,8	8	max. 10,1
PN0148100PL	4,8	10	max. 10,1
PN0148120PL	4,8	12	max. 10,1
PN0148140PL	4,8	14	max. 10,1
PN0148160PL	4,8	16	max. 10,1
PN0148200PL	4,8	20	max. 10,1
PN0160120PL	6,0	12	max. 12,6
PN0160140PL	6,0	14	max. 12,6
PN0160220PL	6,0	22	max. 12,6
PN0160260PL	6,0	26	max. 12,6

Close end rivet aluminum – steel

Type	Łącznik		
	Dimensions	Length	Head dimm
	D	L	W
	[mm]	[mm]	[mm]
PN2632650PL	3,2	6,5	max. 6,7
PN2632800PL	3,2	8	max. 6,7
PN2632950PL	3,2	9,5	max. 6,7
PN2632100PL	3,2	10,7	max. 6,7
PN2632120PL	3,2	12,7	max. 6,7
PN2640800PL	4,0	8	max. 8,4
PN2640950PL	4,0	9,5	max. 8,4
PN2640110PL	4,0	11	max. 8,4
PN2640120PL	4,0	12,7	max. 8,4
PN2640150PL	4,0	15	max. 8,4
PN2648090PL	4,8	9,5	max. 10,1
PN2648110PL	4,8	11	max. 10,1
PN2648120PL	4,8	12,5	max. 10,1
PN2648160PL	4,8	16	max. 10,1
PN2648180PL	4,8	18	max. 10,1
PN2648210PL	4,8	21	max. 10,1
PN2664120PL	6,4	12,5	max. 13,4
PN2664160PL	6,4	16	max. 13,4

Open end rivet aluminum - austenic steel

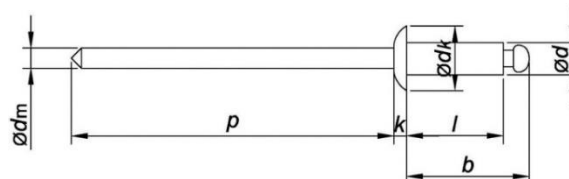
Type	Łącznik		
	Dimensions	Length	Head dimm
	D	L	W
	[mm]	[mm]	[mm]
PN0832060PL	3,2	6	max. 6,7
PN0832080PL	3,2	8	max. 6,7
PN0832100PL	3,2	10	max. 6,7
PN0832120PL	3,2	12	max. 6,7
PN0840080PL	4,0	8	max. 8,4
PN0840100PL	4,0	10	max. 8,4
PN0840120PL	4,0	12	max. 8,4
PN0840140PL	4,0	14	max. 8,4
PN0840160PL	4,0	16	max. 8,4
PN0848080PL	4,8	8	max. 10,1
PN0848100PL	4,8	10	max. 10,1
PN0848120PL	4,8	12	max. 10,1
PN0848140PL	4,8	14	max. 10,1
PN0848160PL	4,8	16	max. 10,1
PN0848200PL	4,8	20	max. 10,1

Close end rivet aluminum - austenic steel

Type	Łącznik		
	Dimensions	Length	Head dimm
	D	L	W
	[mm]	[mm]	[mm]
PN3032060PL	3,2	6,5	max. 6,7
PN3032080PL	3,2	8	max. 6,7
PN3032090PL	3,2	9,5	max. 6,7
PN3032100PL	3,2	10,7	max. 6,7
PN3032120PL	3,2	12,7	max. 6,7
PN3040080PL	4,0	8	max. 8,4
PN3040090PL	4,0	9,5	max. 8,4
PN3040110PL	4,0	11	max. 8,4
PN3040120PL	4,0	12,7	max. 8,4
PN3048090PL	4,8	9,5	max. 10,1
PN3048110PL	4,8	11	max. 10,1
PN3048120PL	4,8	12,5	max. 10,1
PN3048160PL	4,8	16	max. 10,1
PN3048180PL	4,8	18	max. 10,1
PN3048210PL	4,8	21	max. 10,1

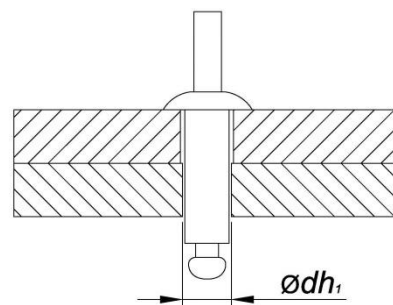
Rivet properties according to PN-EN ISO 15977

Rivet dimensions [mm] acc. PN-EN ISO 15977										
Proper rivet	d	no m.	2,40	3,00	3,20	4,00	4,80	5,00	6,00	6,40
		max	2,48	3,08	3,28	4,08	4,88	5,08	6,08	6,48
	d	min	2,25	2,85	3,05	3,85	4,65	4,85	5,85	6,25
		max	5,00	6,30	6,70	8,40	10,10	10,50	12,60	13,40
	k	min	4,20	5,40	5,80	6,90	8,30	8,70	10,80	11,60
		max	1,00	1,30	1,30	1,70	2,00	2,10	2,50	2,70
Core	d	max	1,55	2,00	2,00	2,45	2,95	2,95	3,40	3,90
	p	min	25,00	25,00	25,00	27,00	27,00	27,00	27,00	27,00
Length of the rivet with the head of the core	b	max	$l_{max} + 3,5$	$l_{max} + 3,5$	$l_{max} + 4,0$	$l_{max} + 4,0$	$l_{max} + 4,5$	$l_{max} + 4,5$	$l_{max} + 5,0$	$l_{max} + 5,5$
Rivet length	lb	nom. = min.	Recommended joining ranges							
		max								
4,0	5,0	from 0,5 to 2,0	from 0,5 to 1,5	-	-	-	-	-	-	
6,0	7,0	from 2,0 to 4,0	from 1,5 to 3,5	from 1,0 to 3,0	from 1,5 to 2,5	-	-	-	-	
8,0	9,0	from 4,0 to 6,0	from 3,5 to 5,0	from 3,0 to 5,0	from 2,5 to 4,0	from 2,0 to 3,0	-	-	-	
10,0	11,0	from 6,0 to 8,0	from 5,0 to 7,0	from 5,0 to 6,5	from 4,0 to 6,0	from 3,0 to 5,0	-	-	-	
12,0	13,0	from 8,0 to 9,5	from 7,0 to 9,0	from 6,5 to 8,5	from 6,0 to 8,0	from 5,0 to 7,0	from 3,0 to 6,0	-	-	
16,0	17,0	-	from 9,0 to 13,0	from 8,5 to 12,5	from 8,0 to 12,0	from 7,0 to 11,0	from 6,0 to 10,0	-	-	
20,0	21,0	-	from 13,0 to 17,0	from 12,5 to 16,5	from 12,0 to 15,0	from 11,0 to 15,0	from 10,0 to 14,0	-	-	
25,0	26,0	-	from 17,0 to 22,0	from 16,5 to 21,0	from 15,0 to 20,0	from 15,0 to 20,0	from 14,0 to 18,0	-	-	
30,0	31,0	-	-	-	from 20,0 to 25,0	from 20,0 to 25,0	from 18,0 to 23,0	-	-	



Diameters of transition holes [mm] acc. PN-EN ISO 15977

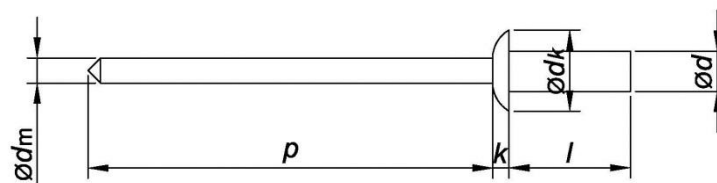
d nom.	dh1	
	min.	max
2,4	2,5	2,6
3,0	3,1	3,2
3,2	3,3	3,4
4,0	4,1	4,2
4,8	4,9	5,0
5,0	5,1	5,2
6,0	6,1	6,2
6,4	6,5	6,6



Mechanical properties of rivets acc. PN-EN ISO 15977

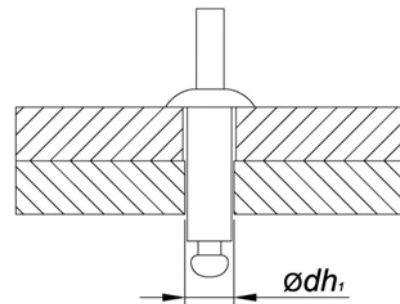
d nom. [mm]	Class L		Class H		Core breaking load maz [N]
	Shear load min. [N]	Tensile load min. [N]	Shear load min. [N]	Tensile load min. [N]	
	2,4	250	350	350	
3,0	400	550	550	850	3000
3,2	500	700	750	1100	3500
4,0	850	1200	1250	1800	5000
4,8	1200	1700	1850	2600	6500
5,0	1400	2000	2150	3100	6500
6,0	2100	3000	3200	4600	9000
6,4	2200	3150	3400	4850	11000

Rivet dimensions [mm] acc. PN-EN ISO 15973						
Proper rivet	d	nom.	3,20	4,00	4,80	6,40
		max	3,28	4,08	4,88	6,48
	dk	min	3,05	3,85	4,65	6,25
		max	6,70	8,40	10,10	13,40
		min.	5,80	6,90	8,30	11,60
k	max	1,30	1,70	2,00	2,70	
Core	d,	max	1,85	2,35	2,77	3,71
	p	min.	25,00	25,00	27,00	27,00
l		Recommended joining ranges				
nom. = min.	max					
6,5	7,5	from 0,5 to 2,0	-	-	-	
8,0	9,0	from 2,0 to 3,5	from 0,5 to 3,5	-	-	
8,5	9,5	-	-	from 0,5 to 3,5	-	
9,5	10,5	from 3,5 to 5,0	from 3,5 to 5,0	from 3,5 to 5,0	-	
11,0	12,0	from 5,0 to 6,5	from 5,0 to 6,5	from 5,0 to 6,5	-	
12,5	13,5	from 6,5 to 8,0	from 6,5 to 8,0	-	from 1,5 to 6,5	
13,0	14,0	-	-	from 6,5 to 8,0	-	
14,5	15,5	-	from 8,0 to 10,0	from 8,0 to 9,5	-	
15,5	16,5	-	-	-	from 6,5 to 9,5	
16,0	17,0	-	-	from 9,5 to 11,0	-	
18,0	19,0	-	-	from 11,0 to 13,0	-	
21,0	22,0	-	-	from 13,0 to 16,0	-	



**Diameters of transition holes [mm] acc.
PN-EN ISO 15973**

d nom.	dh1	
	min.	max
3,2	3,3	3,4
4,0	4,1	4,2
4,8	4,9	5,0
6,4	6,5	6,6



Mechanical properties of rivetsacc. PN-EN ISO 15973

d nom. [mm]	Shear load	Tensile load	Core Breaking load
	min. [N]	min. [N]	max [N]
3,2	1100	1450	3500
4,0	1600	2200	5000
4,8	2200	3100	7000
6,4	3600	4900	10230