PolyGrip-ASO-D-48
PolyGrip-ATO-D-48

Rivet body ø = 4,8 mm
Predrill ø = 4,9 mm

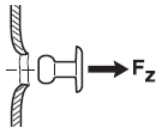
Materials

Fastener:
Rivet body:
Aluminum EN AW-AlMg2.5
Mandrel:
Stainless steel A2
1.4541 or
steel, zinc plated

Metal sheet:
Steel & aluminum

Head type:
Dome head
ø = 9,5 mm

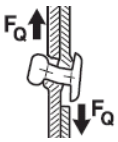
Pull-out load F_z (N)



Part II (blind side)			Part I (setting side)			Test results (N)		
Material grade	$R_{m,min}$	t_{II} (mm)	Material grade	t_I (mm)	KL in mm	$F_{z,avg}$	s	R_k
Steel Sheet								
S350 GD	420 N/mm²	0.50				846	15	**660**
S235	390 N/mm²	0.75				1490	17	**1196**
S320 GD	390 N/mm²	1.00				2193	32	**1732**
Aluminum Sheet								
AlMg3 1/4 hart	220 N/mm²	0.60				510	17	**403**
AlMg3 1/4 hart	220 N/mm²	0.70				656	20	**501**
PE300 1/4 hart	220 N/mm²	0.80				1223	23	**710**
PE300 1/2 hart	240 N/mm²	1.00				1288	42	**980**

Shear load F_q (N)

$F_{q,avg}$ is measured between a displacement of max 3 mm



Part II (blind side)			Part I (setting side)			Test results (N)		
Material grade	$R_{m,min}$	t_{II} (mm)	Material grade	t_I (mm)	KL in mm	$F_{q,avg}$	s	R_k
Steel Sheet			**Steel**					
S350GD	420 N/mm²	0.50	S355	4.00	4.50	1477	48	**1117**
S350GD	420 N/mm²	0.63	S235	7.50	8.13	1575	23	**1256**
S320GD	390 N/mm²	0.75	S235	7.50	8.25	1696	42	**1323**
S350GD	420 N/mm²	1.00	S235	7.50	8.50	1936	60	**1476**
Aluminum Sheet								
AlMg3 1/4 hart	220 N/mm²	0.50	S235	4.00	4.50	1020	25	**773**
AlMg3 1/4 hart	220 N/mm²	0.60	S235	7.50	8.10	1142	21	**935**
PE300 1/4 hart	220 N/mm²	0.80	S235	7.50	8.30	1696	27	**990**
PE300 1/4 hart	240 N/mm²	1.00	S235	7.50	8.50	1885	37	**1474**

Variable description:

$R_{m,min}$= is the minimum standard tensile strength of Part II

t = is the nominal steel thickness of Part I or II

$F_{z,avg}$ arithmetic mean values of test result

s = is the standard deviation

R_k = is the caracteristic resistance of fastenings according to the EN requirements

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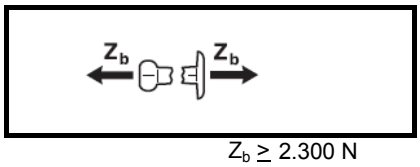
1.4541
steel, zinc plated

Metal sheet:
Steel & aluminum

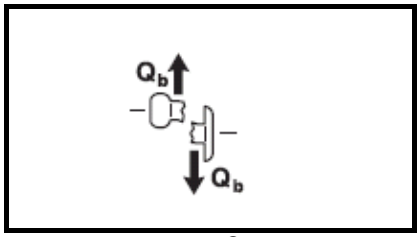
Head type:
Dome head
ø = 9,5 mm

Tensile breaking load Z_b (N)



$Z_b \geq 2.300$ N

Shear breaking load Q_b (N)



$Q_b \geq 1.500$ N

All calculations, measurements, fasteners and design methods have to be verified by a responsible designer or engineer, regarding the corresponding structure and load. Please consult your national norms and approvals.