



**NATIONAL DECLARATION OF PERFORMANCE NO:
KDWU-15/8920 CS**

Version: V-1.2018 EN

1. Name and trade name of construction product:

Screws GTRW GTRW FH are for fixing metal sheets to concrete and wood

2. Type of the construction product:

GTRW x L, GTRW FH x L

3. Intended uses or uses:

The fasteners are designed for fixing flat or profiled steel sheets (coffers) to reinforced or unreinforced concrete class C20 / 25 to C50 / 60 according to PN-EN 206: 2014 or for fixing steel plates to wooden substrate. Attachments of the anchors covered by the Approval can be made in non-scratched concrete.

4. Name and address of the manufacturer and place of manufacture of the product:

Etanco Sp. z o. o., Al. Jana Pawła II 1, 81-345 Gdynia,
Address of production plant : ul. Olsztyńska 30 , 11-130 Orneta

5. Name and address of the authorized representative, if established:

N/A

6. National system used for assessment and verification of constancy of performance:

System 1

7. National technical specification:

7a. Polish Product standard : **N/A**

Name of accredited certification body, accreditation number and national certificate number or name of accredited laboratory / laboratory and accreditation number: **N/A**

7b. National technical assessment : **AT-15-8920/2014**

Technical Assessment Unit / National Technical Assessment Unit :
Instytut Techniki Budowlanej w Warszawie nr 1488

Name of accredited certification body and certificate number:

Zakład Certyfikacji ITB Warszawa AC 020

Certyfikat Zakładowej Kontroli Produkcji nr: ITB-2346/W

8. Declared performance properties

Essential characteristics of the construction product for the intended use or uses	Declared usable features	Comments
Characteristic resistance of fasteners: - pull-out $N_{R,k}$ [kN], - shear $V_{R,k}$ [kN],	According to point 3.2 approval and tables 3÷11	AT-15-8920/2014
Shape and dimensions	According to point 3.2 approval and tables 1÷2	AT-15-8920/2014
Protective coating / Corrosion protection	According to point 2 approval	AT-15-8920/2014 PN-EN ISO 2081:2011 PN-EN ISO 12944 -2

Table 1

Characteristic and design loads of GTRW fasteners (with washer) and GTRW FH for pulling out of concrete C20/25¹

GTRW (with washer) and GTRW FH					
Fastener Type	Diameter of the pre-opening d_o	Mounted metal sheet thickness ² g_{bl}	Effective anchorage depth h_{ef}	Characteristic bearing capacity N_{Rk}	Design resistance N_{Rd}
	[mm]	[mm]	[mm]	[kN]	[kN]
GTRW $\varnothing 6,4$ with washer Z16/S16 and GTRW FH $\varnothing 6,4$	5,0	0,63	30,0	4,03	1,60
	5,0	0,75	30,0	4,03	1,60
	5,0	0,88	30,0	4,03	1,60
	5,0	1,00	30,0	4,03	1,60
	5,0	1,13	30,0	4,03	1,60
	5,0	1,25	30,0	4,03	1,60
	5,0	1,50	30,0	4,03	1,60
	5,0	2,00	30,0	4,03	1,60

¹ concrete class C20/25 according to norm PN-EN 206:2014
² steel sheet grade S280GD according to norm PN-EN 10346:2011

Table 2

Characteristic and design loads of GTRW fasteners (with washer) and GTRW FH for pulling out of concrete C25 / 30¹

GTRW (with washer) and GTRW FH					
Fastener Type	Diameter of the pre-opening d_o	Mounted metal sheet thickness ² g_{bl}	Effective anchorage depth h_{ef}	Characteristic bearing capacity N_{Rk}	Design resistance N_{Rd}
	[mm]	[mm]	[mm]	[kN]	[kN]
GTRW Ø6,4 with washer Z16/S16 and GTRW FH Ø6,4	5,0	0,63	30,0	4,41	1,75
	5,0	0,75	30,0	4,41	1,75
	5,0	0,88	30,0	4,41	1,75
	5,0	1,00	30,0	4,41	1,75
	5,0	1,13	30,0	4,41	1,75
	5,0	1,25	30,0	4,41	1,75
	5,0	1,50	30,0	4,41	1,75
	5,0	2,00	30,0	4,41	1,75

¹ concrete class C25/30 according to norm PN-EN 206:2014
² steel sheet grade S280GD according to norm PN-EN 10346:2011

Table 3

Characteristic and design loads of GTRW fasteners (with washer) and GTRW FH for pulling out of concrete C30 / 37¹ - C50 / 60¹

GTRW (with washer) and GTRW FH					
Fastener Type	Diameter of the pre-opening d_o	Mounted metal sheet thickness ² g_{bl}	Effective anchorage depth h_{ef}	Characteristic bearing capacity N_{Rk}	Design resistance N_{Rd}
	[mm]	[mm]	[mm]	[kN]	[kN]
GTRW Ø6,4 with washer Z16/S16 and GTRW FH Ø6,4	5,0	0,63	30,0	4,90	1,94
	5,0	0,75	30,0	4,90	1,94
	5,0	0,88	30,0	4,90	1,94
	5,0	1,00	30,0	4,90	1,94
	5,0	1,13	30,0	4,90	1,94
	5,0	1,25	30,0	4,90	1,94
	5,0	1,50	30,0	4,90	1,94
	5,0	2,00	30,0	4,90	1,94

¹ concrete class C30/37 – C50/60 according to norm PN-EN 206:2014
² steel sheet grade S280GD according to norm PN-EN 10346:2011

Table 4

Characteristic and design loads of GTRW fasteners (without washer) for pulling out of concrete C20 / 25¹

GTRW (without washer)					
Fastener Type	Diameter of the pre-opening d_o	Mounted metal sheet thickness ² g_{bl}	Effective anchorage depth h_{ef}	Characteristic bearing capacity N_{Rk}	Design resistance N_{Rd}
	[mm]	[mm]	[mm]	[kN]	[kN]
GTRW $\varnothing 6,4$ without washer	5,0	0,63	30,0	2,77	1,50
	5,0	0,75	30,0	3,52	1,60
	5,0	0,88	30,0	4,03	1,60
	5,0	1,00	30,0	4,03	1,60
	5,0	1,13	30,0	4,03	1,60
	5,0	1,25	30,0	4,03	1,60
	5,0	1,50	30,0	4,03	1,60
	5,0	2,00	30,0	4,03	1,60

¹ concrete class C20/25 according to norm PN-EN 206:2014
² steel sheet grade S280GD according to norm PN-EN 10346:2011

Table 5

Characteristic and design loads of GTRW fasteners (without washer) for pulling out of concrete C25 / 30¹

GTRW (without washer)					
Fastener Type	Diameter of the pre-opening d_o	Mounted metal sheet thickness ² g_{bl}	Effective anchorage depth h_{ef}	Characteristic bearing capacity N_{Rk}	Design resistance N_{Rd}
	[mm]	[mm]	[mm]	[kN]	[kN]
GTRW $\varnothing 6,4$ without washer	5,0	0,63	30,0	2,77	1,50
	5,0	0,75	30,0	3,52	1,60
	5,0	0,88	30,0	4,03	1,60
	5,0	1,00	30,0	4,41	1,75
	5,0	1,13	30,0	4,41	1,75
	5,0	1,25	30,0	4,41	1,75
	5,0	1,50	30,0	4,41	1,75
	5,0	2,00	30,0	4,41	1,75

¹ concrete class C25/30 according to norm PN-EN 206:2014
² steel sheet grade S280GD according to norm PN-EN 10346:2011

Table 6

Characteristic and design loads of GTRW fasteners (without washer) for pulling out of concrete C30 / 37¹ - C50 / 60¹

GTRW (without washer)					
Fastener Type	Diameter of the pre-opening d_o	Mounted metal sheet thickness ² g_{bl}	Effective anchorage depth h_{ef}	Characteristic bearing capacity N_{Rk}	Design resistance N_{Rd}
	[mm]	[mm]	[mm]	[kN]	[kN]
GTRW Ø6,4 without washer	5,0	0,63	30,0	2,77	1,50
	5,0	0,75	30,0	3,52	1,60
	5,0	0,88	30,0	4,06	1,60
	5,0	1,00	30,0	4,85	1,92
	5,0	1,13	30,0	4,85	1,92
	5,0	1,25	30,0	4,85	1,92
	5,0	1,50	30,0	4,85	1,92
	5,0	2,00	30,0	4,85	1,92

¹ concrete class C30/37 - C50/60 according to norm PN-EN 206:2014
² steel sheet grade S280GD according to norm PN-EN 10346:2011

Table 7

Characteristic and design loads of GTRW and GTRW FH fasteners for shear - concrete base C20 / 25¹ - C50 / 60¹

GTRW and GTRW FH					
Fastener Type	Diameter of the pre-opening d_o	Mounted metal sheet thickness ² g_{bl}	Effective anchorage depth h_{ef}	Characteristic bearing capacity N_{Rk}	Design resistance N_{Rd}
	[mm]	[mm]	[mm]	[kN]	[kN]
GTRW Ø6,4 with washer Z16/S16 and GTRW FH Ø6,4	5,0	0,63	30,0	2,35	1,88
	5,0	0,75	30,0	2,65	2,12
	5,0	0,88	30,0	2,96	2,36
	5,0	1,00	30,0	3,33	2,66
	5,0	1,13	30,0	4,03	3,22
	5,0	1,25	30,0	4,03	3,22
	5,0	1,50	30,0	4,03	3,22
	5,0	2,00	30,0	4,03	3,22

¹ concrete class C20/25 – C50/60 according to norm PN-EN 206:2014
² steel sheet grade S280GD according to norm PN-EN 10346:2011

Table 8

Characteristic and design loads of GTRW fasteners (with washer) and GTRW FH for pulling out of C24 class wood substrate¹

GTRW (with washer) and GTRW FH				
Fastener type	Mounted metal sheet thickness ² g_{bl}	Effective anchorage depth h_{ef}	Characteristic bearing capacity N_{Rk}	Design resistance N_{Rd}
	[mm]	[mm]	[kN]	[kN]
GTRW $\varnothing 6,4$ with washer Z16/S16 and GTRW FH $\varnothing 6,4$	0,63	30,0	3,59	1,14

¹ construction wood according to PN-EN 14081-1÷A1:2011, class C24 according to PN-EN 338:2011
² sheet steel of grade S280GD according to norm PN-EN 10346:2011

Table 9

Characteristic and design loads of GTRW fasteners (with washer) and GTRW FH on shear - C24 class wood base.

GTRW (with washer) and GTRW FH				
Fastener type	Mounted metal sheet thickness ² g_{bl}	Effective anchorage depth h_{ef}	Characteristic bearing capacity V_{Rk}	Design resistance V_{Rd}
	[mm]	[mm]	[kN]	[kN]
GTRW $\varnothing 6,4$ with washer Z16/S16 and GTRW FH $\varnothing 6,4$	0,63	30,0	3,59	1,14

¹ construction wood according to PN-EN 14081-1÷A1:2011, class C24 according to PN-EN 338:2011
² sheet steel of grade S280GD according to norm PN-EN 10346:2011

9. The performance properties of the product specified above are in accordance with all the declared performance characteristics listed in paragraph 8. This national declaration of performance is issued in accordance with the Act of 16 April 2004 on construction products, under the sole responsibility of the manufacturer.

Place and date of issue

Orneta 02.01.2018

On behalf of the manufacturer signed
(Name and position)

Product Manager:

Aleksander Bielecki
Product Manager
Etanco Sp. z o.o.