Polyester 300ml Styrene Free

JFEA300SF
Vol. 300ml

INFORMATION

Polyester Styrene Free Resin is a two part grey resin (10:1) suitable for use in the vast majority of base materials. It can be used for installing threaded studs, rebar or internal threaded sockets for structural applications such as:

- Columns
- Guard rails
- Façades
- Staircases
- Cantilever beams

BASE MATERIAL

- Concrete C20/25 To C50/60
- Non-Cracked Concrete
- Dry/Wet/Flooded Holes
- Solid Brickwork
- Concrete Block
- Hollow Base Materials
- Natural Stone

FEATURES

- Expansion Free
- High Performance
- Close Spacing And Edge Distance

APPROVALS

European Technical Assessment
Option 7 Non-Cracked Concrete

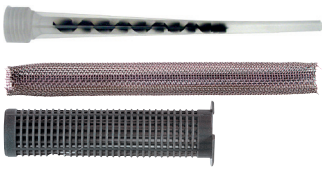
ETA16/0622

RELATED PRODUCTS

JTOOL300
(300ml Tubes)

Injection Resin Gun

Hole Cleaning Brushes and Pump



Mixer Nozzle JMN130
Wire Mesh Sleeve
Nylon Sleeve

Injection Accessories

WORKING/LOADING TIME

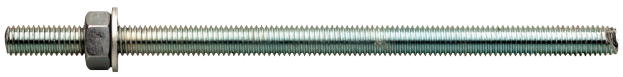
Note:
T_{work} = The highest temperature in the range
T_{load} = The lowest temperature in the range

Base Material Temperature °C	Usable Time T_{work} (mins)	Load Time T_{load} (mins)
+5°C to +9°C	10	145
+10°C to +14°C	8	85
+15°C to +19°C	6	70
+20°C to +29°C	4	50
+30°C to +34°C	3	35
+35°C to +39°C	3	20
Ensure Cartridge Temperature is +5°C to +30°C		

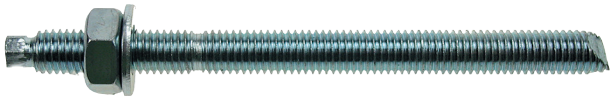
EMBEDDED THREADED ROD

- Stainless Steel Grade A4/316
- Chisel End Studs
- Setting Tool Included

- Stainless Steel Grade A4/316
- Chisel End Studs
- Plain Ended



- Zinc Plated and Clear Passivated (Min 5µm)
- Chisel End Studs
- Plain Ended



- Zinc Plated and Clear Passivated (Min 5µm)
- Chisel End Studs
- Setting Tool Included

Unit 14 Teddington Business Park
Station Rd.,Teddington, Middlesex
TW11 9BQ

Tel: +44 (0)20 8943 1800
Fax:+44 (0)20 8943 1140

jcpenquiries@owlett-jaton.com
www.jcpfixings.co.uk

Polyester 300ml Styrene Free

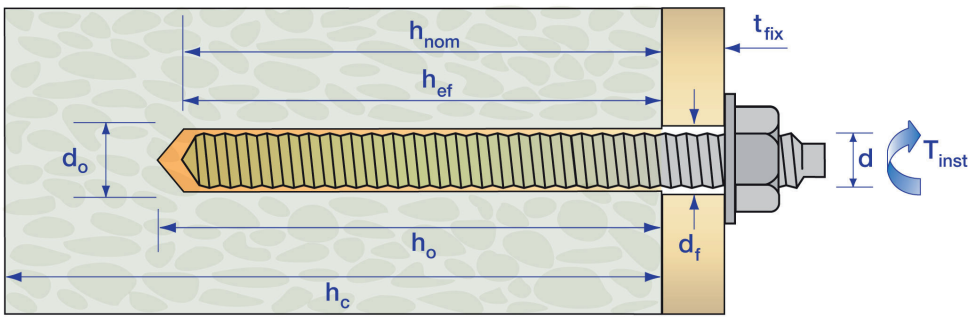
RANGE AND LOAD DATA

RANGE DATA

Part Number	Thread Diam (d) mm	Stud Length (L) mm	Drill Hole Diam. (d_0) mm	Fixture Clearance Hole (d_f) mm	Standard Embedment		Shallow Embedment		Deep Embedment		Tightening Torque (T_{inst}) Nm
					Max. Fix. Thickness (t_{fix}) mm	Min. Hole Depth (h_0) mm**	Max. Fix. Thickness (t_{fix}) mm	Min. Hole Depth (h_0) mm	Max. Fix. Thickness (t_{fix}) mm	Min. Hole Depth (h_0) mm	
Stainless Steel Grade A4/316 Chisel End Studs											
JSTUD08110SSA4	M8	110	10	10	18	80	38	64	6	96	10
JSTUD10130SSA4	M10	130	12	12	25	90	40	80	*	120	20
JSTUD12160SSA4	M12	160	14	14	34	110	51	96	3	144	40
JSTUD16190SSA4	M16	190	18	18	42	128	44	128	*	192	80
JSTUD20260SSA4	M20	260	22	22	55	170	79	160	*	240	150
JSTUD24300SSA4	M24	300	26	26	55	210	82	192	*	288	200
Stainless Steel Grade A4/316 Plain Ended and Chisel End Studs											
JSTUD08150PESS	M8	150	10	10	62	80	78	64	46	96	10
JSTUD10105PESS	M10	105	12	12	5	90	15	80	*	120	20
JSTUD10150PESS		150			50		60		20		
JSTUD10200PESS		200			100		110		70		
JSTUD12110PESS	M12	110	14	14	*	110	1	96	*	144	40
JSTUD12150PESS		150			27		41		*		
JSTUD12200PESS		200			77		91		43		
JSTUD16110PESS	M16	110	18	18	*	128	*	128	*	192	80
JSTUD16250PESS		250			104		104		40		
JSTUD16350PESS		350			204		204		140		
JSTUD20200PESS	M20	200	22	22	9	170	19	160	*	240	150
JSTUD20400PESS		400			209		219		139		

* *Deep Embedment Depth* can be achieved by using suitable threaded rod cut to length: $L = h_0 + (t_{fix} + t_{Nut+Washer})$

** *For the Polyester Styrene Free Resin:* $h_0 = h_{ef}$



Technical Data Sheet

Unit 14 Teddington Business Park
Station Rd.,Teddington, Middlesex
TW11 9BQ

Tel: +44 (0)20 8943 1800
Fax:+44 (0)20 8943 1140

jcpenquiries@owlett-jaton.com
www.jcpfixings.co.uk

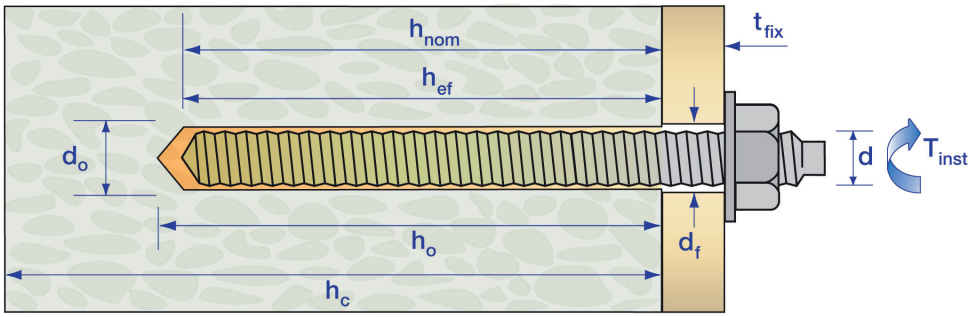
Polyester 300ml Styrene Free

RANGE DATA

Part Number	Thread Diam (d) mm	Stud Length (L) mm	Drill Hole Diam. (d_0) mm	Fixture Clearance Hole (d_f) mm	Standard Embedment		Shallow Embedment		Deep Embedment		Tightening Torque (T_{inst}) Nm
					Max. Fix. Thickness (t_{fix}) mm	Min. Hole Depth (h_0) mm**	Max. Fix. Thickness (t_{fix}) mm	Min. Hole Depth (h_0) mm	Max. Fix. Thickness (t_{fix}) mm	Min. Hole Depth (h_0) mm	
Zinc Plated Steel Grade 5.8 - Clear Passivated Plain Ended and Chisel End Studs											
JSTUD08150PE	M8	150	10	10	62	80	78	64	46	96	10
JSTUD10105PE	M10	105	12	12	5	90	15	80	*	120	20
JSTUD10150PE		150			50		60		20		
JSTUD10200PE		200			100		110		70		
JSTUD12110PE	M12	110	14	14	*	110	1	96	*	144	40
JSTUD12150PE		150			27		41		*		
JSTUD12200PE		200			77		91		43		
JSTUD16110PE	M16	110	18	18	*	128	*	128	*	192	80
JSTUD16250PE		250			104		104		40		
JSTUD16350PE		350			204		204		140		
JSTUD20200PE	M20	200	22	22	9	170	19	160	*	240	150
JSTUD20400PE		400			209		219		139		
Zinc Plated Steel Grade 5.8 - Clear Passivated and Chisel End Studs											
JSTUD08110	M8	110	10	10	18	80	38	64	6	96	10
JSTUD10130	M10	130	12	12	25	90	40	80	*	120	20
JSTUD12160	M12	160	14	14	34	110	51	96	3	144	40
JSTUD16190	M16	190	18	18	42	128	44	128	*	192	80
JSTUD20260	M20	260	22	22	55	170	79	160	*	240	150
JSTUD24300	M24	300	26	26	55	210	82	192	*	288	200
JSTUD30380	M30	380	35	32	55	280	110	240	*	360	275

* *Deep Embedment Depth* can be achieved by using suitable threaded rod cut to length: $L = h_0 + (t_{fix} + t_{Nut+Washer})$

** *For the Polyester Styrene Free Resin:* $h_0 = h_{ef}$



Unit 14 Teddington Business Park
Station Rd.,Teddington, Middlesex
TW11 9BQ

Tel: +44 (0)20 8943 1800
Fax:+44 (0)20 8943 1140

jcpenquiries@owlett-jaton.com
www.jcpfixings.co.uk

Polyester 300ml Styrene Free

GRADE A4-70 STAINLESS STEEL STUDS - NON-CRACKED CONCRETE

SHALLOW EMBEDMENT

Grade A4-70 Stainless Steel Studs Performance Data (C20/25 non-cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h_0) mm	Minimum Concrete Thickness (h_{min}) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N_{Rk})	Shear (V_{Rk})	Tensile (N_{Rd})	Shear (V_{Rd})	Tensile (N_{Ra})	Shear (V_{Ra})	Tensile	Shear	Tensile	Shear
8	64	100	12.9	13.0	7.1	8.3	5.0	5.9	170	40	90	90
10	80	110	17.6	20.0	9.7	12.8	6.9	9.1	190	40	100	120
12	96	130	25.3	30.0	14.0	19.2	10.0	13.7	230	50	120	170
16	128	170	45.0	55.0	25.0	35.2	17.8	25.1	310	70	160	260
20	160	210	70.4	86.0	39.0	55.1	27.8	39.3	390	80	200	370
24	192	250	86.9	124.0	48.2	79.4	34.4	56.7	430	100	220	480

STANDARD EMBEDMENT

Grade A4-70 Stainless Steel Studs Performance Data (C20/25 non-cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h_0) mm	Minimum Concrete Thickness (h_{min}) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N_{Rk})	Shear (V_{Rk})	Tensile (N_{Rd})	Shear (V_{Rd})	Tensile (N_{Ra})	Shear (V_{Ra})	Tensile	Shear	Tensile	Shear
8	80	110	16.1	13.0	8.9	8.3	6.3	5.9	170	40	90	80
10	90	120	19.8	20.0	10.9	12.8	7.7	9.1	190	50	100	110
12	110	140	29.0	30.0	16.1	19.2	11.5	13.7	230	60	120	160
16	128	170	45.0	55.0	25.0	35.2	17.8	25.1	310	70	160	260
20	170	220	74.8	86.0	41.5	55.1	29.6	39.3	390	90	200	350
24	210	270	95.0	124.0	52.7	79.4	37.6	56.7	430	110	220	450

DEEP EMBEDMENT

Grade A4-70 Stainless Steel Studs Performance Data (C20/25 non-cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h_0) mm	Minimum Concrete Thickness (h_{min}) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N_{Rk})	Shear (V_{Rk})	Tensile (N_{Rd})	Shear (V_{Rd})	Tensile (N_{Ra})	Shear (V_{Ra})	Tensile	Shear	Tensile	Shear
8	96	130	19.3	13.0	10.7	8.3	7.6	5.9	170	50	90	80
10	120	150	26.4	20.0	14.6	12.8	10.4	9.1	190	60	100	100
12	144	175	38.0	30.0	21.1	19.2	15.0	13.7	230	80	120	130
16	192	230	67.6	55.0	37.5	35.2	26.7	25.1	310	100	160	200
20	240	290	105.6	86.0	58.6	55.1	41.8	39.3	390	120	200	280
24	288	350	130.3	124.0	72.3	79.4	51.6	56.7	430	150	220	360

Unit 14 Teddington Business Park
Station Rd.,Teddington, Middlesex
TW11 9BQ

Tel: +44 (0)20 8943 1800
Fax:+44 (0)20 8943 1140

jcpenquiries@owlett-jaton.com
www.jcpfixings.co.uk

GRADE 5.8 ZINC PLATED STUDS - NON-CRACKED CONCRETE

SHALLOW EMBEDMENT

Grade 5.8 Zinc Plated Studs Performance Data (C20/25 non-cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h_0) mm	Minimum Concrete Thickness (h_{min}) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N_{Rk})	Shear (V_{Rk})	Tensile (N_{Rd})	Shear (V_{Rd})	Tensile (N_{Ra})	Shear (V_{Ra})	Tensile	Shear	Tensile	Shear
8	64	100	12.9	9.0	7.1	7.2	5.0	5.1	170	40	90	70
10	80	110	17.6	15.0	9.7	12.0	6.9	8.5	190	40	100	110
12	96	130	25.3	21.0	14.0	16.8	10.0	12.0	230	50	120	140
16	128	170	45.0	39.0	25.0	31.2	17.8	22.2	310	70	160	230
20	160	210	70.4	61.0	39.0	48.8	27.8	34.8	390	80	200	320
24	192	250	86.9	88.0	48.2	70.4	34.4	50.2	430	100	220	420

STANDARD EMBEDMENT

Grade 5.8 Zinc Plated Studs Performance Data (C20/25 non-cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h_0) mm	Minimum Concrete Thickness (h_{min}) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N_{Rk})	Shear (V_{Rk})	Tensile (N_{Rd})	Shear (V_{Rd})	Tensile (N_{Ra})	Shear (V_{Ra})	Tensile	Shear	Tensile	Shear
8	80	110	16.1	9.0	8.9	7.2	6.3	5.1	170	40	90	70
10	90	120	19.8	15.0	10.9	12.0	7.7	8.5	190	50	100	110
12	110	140	29.0	21.0	16.1	16.8	11.5	12.0	230	60	120	130
16	128	170	45.0	39.0	25.0	31.2	17.8	22.2	310	70	160	230
20	170	220	74.8	61.0	41.5	48.8	29.6	34.8	390	90	200	310
24	210	270	95.0	88.0	52.7	70.4	37.6	50.2	430	110	220	390

DEEP EMBEDMENT

Grade 5.8 Zinc Plated Studs Performance Data (C20/25 non-cracked concrete)												
Thread Diam (d) mm	Minimum Hole Depth (h_0) mm	Minimum Concrete Thickness (h_{min}) mm	Characteristic Resistance kN		Design Resistance kN		Approved Resistance kN		Design Spacing (S) mm		Design Edge Distance (C) mm	
			Tensile (N_{Rk})	Shear (V_{Rk})	Tensile (N_{Rd})	Shear (V_{Rd})	Tensile (N_{Ra})	Shear (V_{Ra})	Tensile	Shear	Tensile	Shear
8	96	130	19.3	9.0	10.7	7.2	7.6	5.1	170	50	90	70
10	120	150	26.4	15.0	14.6	12.0	10.4	8.5	190	60	100	90
12	144	175	38.0	21.0	21.1	16.8	15.0	12.0	230	80	120	110
16	192	230	67.6	39.0	37.5	31.2	26.7	22.2	310	100	160	170
20	240	290	105.6	61.0	58.6	48.8	41.8	34.8	390	120	200	240
24	288	350	130.3	88.0	72.3	70.4	51.6	50.2	430	150	220	310

Unit 14 Teddington Business Park
Station Rd.,Teddington, Middlesex
TW11 9BQ

Tel: +44 (0)20 8943 1800
Fax:+44 (0)20 8943 1140

jcpenquiries@owlett-jaton.com
www.jcpfixings.co.uk

Polyester 300ml Styrene Free

SUPPLEMENTARY DATA

INFLUENCE OF CONCRETE STRENGTH					
Concrete strength		C20/25	C30/37	C40/50	C50/60
Cylinder	N/mm²	20	30	40	50
Cube	N/mm²	25	37	50	60
Factor		1.0	1.08	1.15	1.19

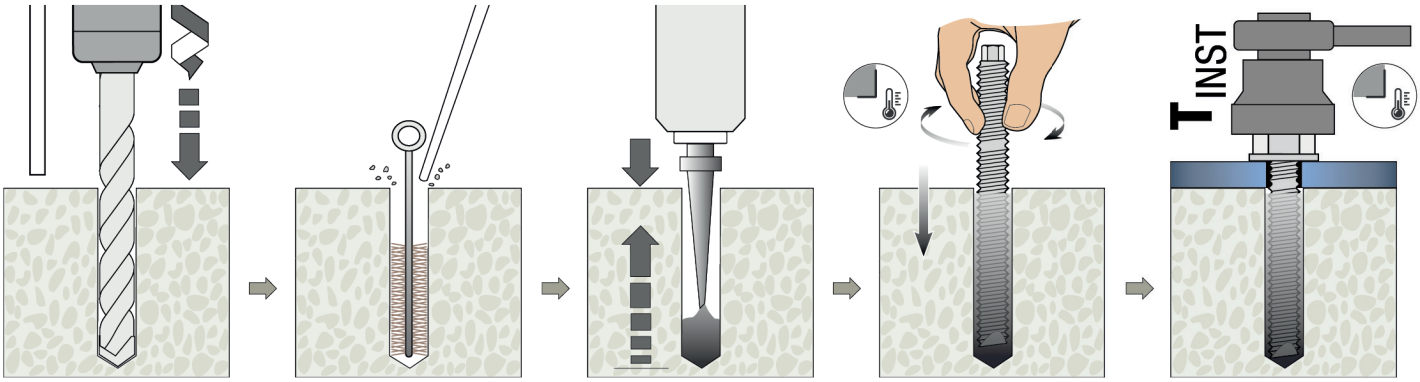
Important Note:

When using concrete factors ensure that loads do not exceed Steel Design Resistance.

STEEL DESIGN RESISTANCE FOR SINGLE ANCHOR							
Load Type	Steel Grade	Threaded Rod Size					
		M8	M10	M12	M16	M20	M24
Tensile (kN)	Stainless Steel Grade A4-70	13.7	21.6	31.1	57.9	90.5	130.0
	Grade 5.8	12.0	19.3	28.0	52.7	82.0	118.0
Shear (kN)	Stainless Steel Grade A4-70	8.3	12.8	19.2	35.3	55.1	79.5
	Grade 5.8	7.2	12.0	16.8	31.2	48.8	70.4

For variations in structure thickness, reduced spacing and edge calculations download the free **A**nchor **C**alculation **P**rogram from **www.jcpfixings.co.uk**

INSTALLATION INSTRUCTIONS



-Drill correct diameter hole to corresponding depth

-Clean hole by brushing, blowing to remove drilling debris and dust:

2×Blowing

2×Brushing

2×Blowing

2×Brushing

2×Blowing

-Attach nozzle to cartridge

-Extrude first part to waste until an even colour is achieved

-Fill hole 1/3 to 1/2 full starting from the bottom of the hole

-Insert stud into base material by hand using a twisting motion

-Allow resin to cure

-Attach fixture

-Tighten with torque wrench to recommended torque

Unit 14 Teddington Business Park
Station Rd.,Teddington, Middlesex
TW11 9BQ

Tel: +44 (0)20 8943 1800
Fax:+44 (0)20 8943 1140

jcpenquiries@owlett-jaton.com
www.jcpfixings.co.uk