TEKS SELECT

SELECTIVE HARDENING ATTACHES SIMILAR OR DISSIMILAR METALS
SELF-DRILLING AND TAPPING AND GRADE 5 PERFORMANCE^T INSTALLS FASTER THAN NUTS AND BOLTS



The Difference Can Last a Lifetime!

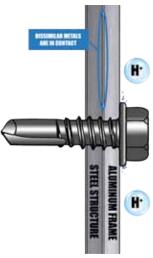
Grade 5 Performance! Designed to attach similar or dissimilar metals, Teks Select fasteners have strength and ductility performance similar to Grade 5 bolts. These characteristics in the fastener's load-bearing area improve resistance to shear failure due to wind and other loads requiring mechanical flex (ductility). This strength and ductility also equips the Teks Select to maintain mechanical integrity when attaching different metals. This attachment can apply shear pressure on the fastener due to the different rates of expansion and contraction (expansion coefficients) present in each type of metal.

An independent 3rd party laboratory tested Teks Selects for strength and ductility performance similar to Grade 5 bolts tested to SAE J429 and ASTM A449. Teks Select hydrogen embrittlement testing was conducted in a 5% neutral salt spray environment per ASTM

B117. Fasteners were installed in a wedge plate fixture to induce stress and exposed to over 80% fastener torsion strength of torque every 24 hours for 240 hours resulting in no head pops.



Teks Select features selective hardening. When dissimilar metals (for example, aluminum and steel) are mechanically fastened and water (from moisture or other sources) is present, a galvanic corrosion takes place. This releases atomic Hydrogen. The



presence of the Hydrogen creates the specific conditions in which the Hydrogen assisted stress corrosion cracking (HASCC) or Hydrogen embrittlement of the fasteners may occur. If the fastener material is ductile enough, this situation is prevented. Teks Select's selective hardening process produces drill point and lead threads hard enough (HRC 52 miniHYDROGEN ASSISTED STRESS CRACKING

Brittle Material

Hy

Trac Atoms If Merge into an R, Wolcole

Plastic

Ductile Material

Hy

Plastic

Difference of the control of the c

mum) to drill and tap through metals. The load-bearing area remains soft enough (HRC 28-34) to remain ductile accommodating the expansion coefficients of dissimilar metals and resisting Hydrogen embrittlement. And that means the integrity of the connection between the fastened metals is maintained over the life of the building and the building requires less fastener maintenance.

Self-drilling fasteners can install twice as fast as nuts and bolts. When a job requires a large number of nuts and bolts instead of having to:

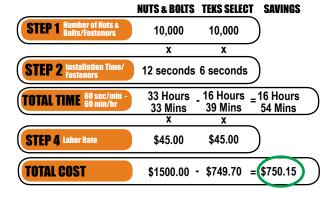
- 1) Pre-drill
- 2) Insert the bolt
- 3) Thread on the nut
- 4) Tighten the nut to the required torque

Now these four steps are replaced by one step:

1) Install the Teks Select

The Teks Select replaces four steps with one. And that means you save time and money.

ROI CALCULATOR - SELF-DRILLING



Teks Select features Climaseal Advanced Corrosion Resistance (ACR) coating. This coating enables Teks Select fasteners to outperform competitive fasteners in a 5% neutral salt spray test (conducted per ASTM B117 standards) by both ITW Buildex and an independent 3rd party laboratory. And that means, the work you invest in during fastener installation resists galvanic corrosion and delivers a longer lasting building to **your customer**.

AFTER 1000 HOURS OF 5% NEUTRAL SALT SPRAY EXPOSURE





TEKS SELECT™

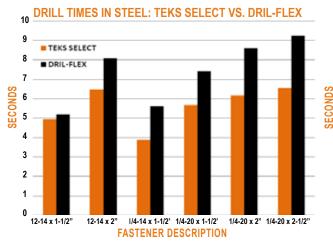
ELCO DRIL-FLEX®

CLIMASEAL ACR COATING



Teks Select™ features the BX head marking. This head marking differentiates a Teks Select fastener from standard Teks fasteners that can offer fewer features. And that means, you are installing a fastener backed by customer service from a world class provider of fastening solutions.

A drill point that starts faster along with a more efficient thread design combine to enable the Teks Select[™] to drill and tap up to 40% faster than other drilling and tapping fasteners.



A drill point that starts faster along with a more efficient thread design combine to enable the Teks Select to drill and tap with fewer stalls than other drilling and tapping fasteners. In laboratory tests at ITW Buildex, using a test fixture, Teks Select drilled and tapped into a 1/4" steel plate, in 20 out of 20 attempts. The competitive fasteners stalled in as many as 8 out of 20 attempts.

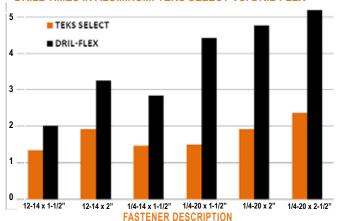
COMPETITIVE DRILL TESTING

ROI CALCULATOR - FEWER STALLS

DRIL-FLEX	TEKS SELECT	SAVINGS
10,000	10,000	
X	Х	
3,000	0	
X	X	_
18 seconds	6 second	s
15 Hours	0 Hours	= 15 Hours
х	Х	_
\$45.00	\$45.00)
	-	=(\$675.00)
	10,000 x 3,000 x 18 seconds 15 Hours x	10,000 10,000 x x 3,000 0 x x 18 seconds 6 seconds 15 Hours - 0 Hours x x

In laboratory tests at ITW Buildex, Teks Select out performed Elco Dril-Flex® in speed tests conducted in a fixture drilling and tapping into steel and aluminum.

DRILL TIMES IN ALUMINUM: TEKS SELECT VS. DRIL-FLEX



DRIL-FLEX SAMPLES



ITW BUILDEX SAMPLES

APPLICATIONS

Because Teks Select is specifically designed to meet the challenges of attaching similar or dissimilar types of metal, it provides extended fastener life for these applications:

- Glass and Metal Curtain Walls
- Fenestration: Window Systems, Door Systems, and Store Front Systems
- Solar System Attachment
- Grade 5 Nut and Bolt Substitution
- Anchoring Metal Clips to Metal Structures for Masonry Facades

SPECIFICATIONS

Application......Metal attachments, including aluminum to steel

Short Form......Self-drilling and tapping, selectively hardened fastener with Specification[†] strength and ductility performance similar to a Grade 5

(1/4-20 diameter) SAE J 429 and ASTM A 449 fastener

Diameters.....#10, #12, 1/4"

Thread Form......10-16, 12-14, 1/4-14, 1/4-20

Head Styles......Hex washer head, undercut Phillips flat head

Drill Point.....Teks® 3, Teks® 4

Finish......Climaseal ACR* corrosion-resistant finish meets a minimum of 1,000 hours salt spray per ASTM B117 standards with 0% red rust

CLIMASEAL ACR COATING
provides superior
resistance to surface
corrosion

A DRILL TIP THAT STARTS FASTER
geometry for drilling into
aluminum and steel

LOWER HARDNESS
(HRC 28-34)
load-bearing section
provides ductility

HIGHER HARDNESS
(HRC 28-34)
did bearing section
drilling into
aluminum and steel

HIGHER HARDNESS
(HRC 28-11)
drilling into
aluminum and steel

drilling

SELECTOR GUIDE & PERFORMANCE DATA

Part Number		1076000	1112000	1080000	1132000	1114000	1117000	1119000	1121000	1124000	1125000	1078000	1126000	
Description		10-16x3/4"	12-14x7/8"	12-14x1"	12-14x1"	12-14x1-1/2"	12-14x2"	1/4-14x1"	1/4-14x1-1/2"	1/4-20x1-1/8"	1/4-20x1-1/2"	1/4-20x2"	1/4-20x2-1/2"	
Head Style		HWH	HWH	HWH	UPFH***	HWH	HWH	HWH	HWH	HWH	HWH	HWH	HWH	
Drill Point		3	3	3	3	3	3	3	3	4	4	4	4	
Drilling Cap		.150"	.187"	.187"	.187"	.187"	.187"	.210"	.210"	.210"312"	.210"312"	.210"312"	.210"312"	
Max Load Bearing Area*		.500	.470"	.500"	.500*	1.000	1.500	.450"	.950"	.500"	.830"	1.330"	1.830"	
Installation Tool		Tool	5/16" Driv- Tru [™] Socket (P/N: 1513910)	5/16" Driv- Tru [™] Socket (P/N: 1513910)	5/16" Driv- Tru [™] Socket (P/N: 1513910)	#3 Phillips Bit	5/16" Driv- Tru [™] Socket (P/N: 1513910)	5/16" Driv- Tru [™] Socket (P/N: 1513910)	3/8" Driv- Tru [™] Socket (P/N: 1574910)					
PULLOUT VALUES (AVERAGE LBS. ULTIMATE)														
		ksi												
	18	45.5	401	400	400	400	400	400	475	475				
	16	63	699	561	561	561	561	561	631	631	827	827	827	827
щ	14	55.5	1010	964	964	964	964	964	1062	1062	1258	1258	1258	1258
STEEL GAUGE	12	63	1680	1516	1516	1516	1516	1516	1878	1878	1946	1946	1946	1946
	1/8	56.9	2183	2149	2149	2149	2149	2149	2320	2320	2685	2685	2685	2685
	3/16	65.3		2877	2877	2497	2877	2877	3668	3668	3572	3572	3572	3572
	1/4	48.1									4719	4719	4719	4719
	5/16	49.1									4699	4699	4699	4699
63-T5	1/8	32.4	745	1008	1008	1008	1008	1008	1017	1017	970	970	970	970
ALUMINUM 6063-T5	1/4	32.1		2543	2543	2462	2543	2543	3080	3080	2760	2760	2760	2760
ALUMII	3/8	27.7									3851	3851	3851	3851
SH	EAR V	'ALUE	S (AVER	AGE LBS.	ULTIMATI	Ε)								
	18-	-18	996	965	965	965	965	965	1100	1100	1026	1026	1026	1026
	18-	-14	1872	1803	1803	1803	1803	1803	2132	2132	2089	2089	2089	2089
6E *	16-	-16	1331	1360	1360	1360	1360	1360	1414	1414	1359	1359	1359	1359
STEEL GAUGE**	14-	-14		1815	1815	1815	1815	1815	2439	2439	2357	2357	2357	2357
	1/8-	3/16							2636	2636	2748	2748	2748	2748
	3/16	-1/4									2881	2881	2881	2881
	12-	1/4									2843	2843	2843	2843
ALUMINUM 6063-T5**	1/8-		1526	1846	1846	1846	1846	1846	2087	2087	2106	2106	2106	2106
	_			2488	2488	2180	2488	2488	3328	3328	3062	3062	3062	3062
MECHANICAL PROPERTIES														
Yield Stregth, F _y Ksi (MPa)		134 ksi 920 Mpa	134 ksi 920 Mpa	134 ksi 920 Mpa	134 ksi 920 Mpa	134 ksi 920 Mpa	134 ksi 920 Mpa	134 ksi 920 Mpa	134 ksi 920 Mpa	134 ksi 920 Mpa	134 ksi 920 Mpa	134 ksi 920 Mpa	134 ksi 920 Mpa	
	Tensile Strength F _u Ksi (MPa)		152 ksi 1054 Mpa	152 ksi 1054 Mpa	152 ksi 1054 Mpa	152 ksi 1054 Mpa	152 ksi 1054 Mpa	152 ksi 1054 Mpa	152 ksi 1054 Mpa	152 ksi 1054 Mpa	152 ksi 1054 Mpa	152 ksi 1054 Mpa	152 ksi 1054 Mpa	152 ksi 1054 Mpa Ilips Flat Head

^{*} IMPORTANT: Maximum load bearing area is indicated by brackets.

*** Undercut Phillips Flat Head



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Dril-Flex is a registered trademark of Elco, Inc.

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^{**} KSI values are the same as listed in the Pullout Values table.