NITTOSEIKO

IS-F-2-E-UL

Self-locking screw at low cost

APSLOK®

Perfect locks with internal thread!

- ☑ Realize big cost reduction by quit using the bond.
- ☑ Stable anti-loosening performance by sticking to flank face on internal thread.
- ☑ Improve anti-loosening performance by prevailing torque.

TECHNICAL REPORT Self-locking screw at low cost APSLOK®

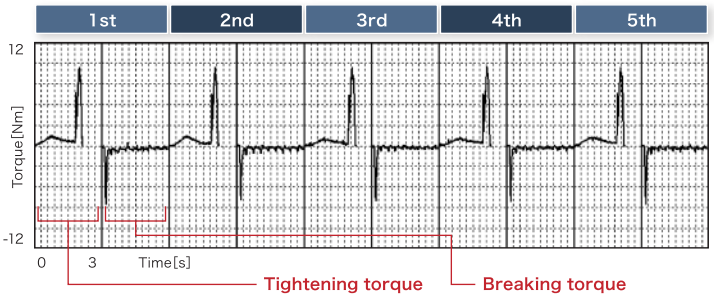
TECHNICAL REPORT 01 Breaking torque test

■ Fastening condition
- Material of mating part：Nut(M6) Tapped hole Thickness t=4.95
- Object：SPCC Flat washer Washer thickness t=1.6 5pcs

■ Tightening torque
- Initial torque：5.0N·m(Rotation speed 300rpm)
- Tightening set torque：9.0N·m(Rotation speed 60rpm)

■ Screw
APSLOK(φ6x20·Hexagon head with flange) ※Plating：Zinc+Trivalent chromate

	Data(N·m)				
	1st	2nd	3rd	4th	5th
Tightening torque	9.145	9.110	9.122	9.227	9.157
Breaking torque	6.788	6.343	6.402	6.472	6.812



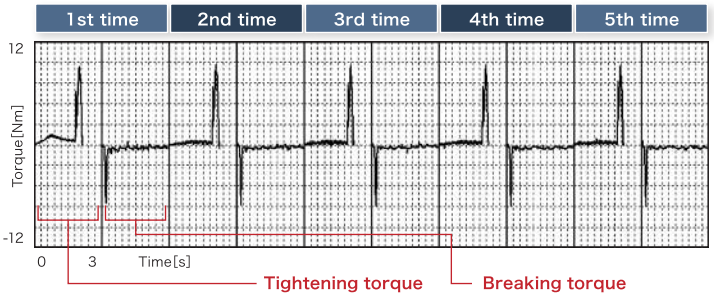
TECHNICAL REPORT 02 Repeated breaking torque test

■ Fastening condition
- Material of mating part：Nut(M6) Tapped hole Thickness t=4.95
- Object：SPCC Flat washer Washer thickness t=1.6 5pcs

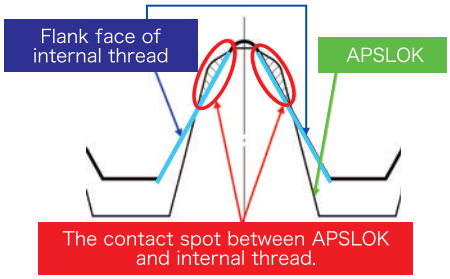
■ Tightening torque
- Initial torque：5.0N·m(Rotation speed 300rpm)
- Tightening set torque：9.0N·m(Rotation speed 60rpm)

■ Screw
APSLOK(φ6x20·Hexagon head with flange) ※Plating：Zinc+Trivalent chromate

	Data(N·m)				
	1st time	2nd time	3rd time	4th time	5th time
Tightening torque	9.145	9.298	9.239	9.321	9.227
Breaking torque	6.788	7.058	7.105	7.152	7.199
Prevailing torque when loosening	1.055	0.809	0.598	0.750	0.551



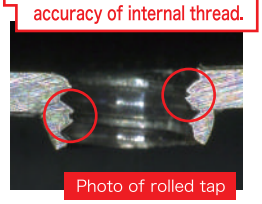
TECHNICAL REPORT 03 Effect by sticking to flank face.



1. Good performance against anti-loosening

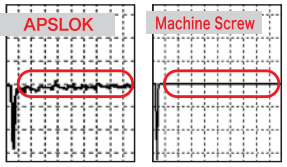
Cost saving by no bond.
→About 30% cost saving
(In-house comparison).

2. Insusceptible by poor accuracy of internal thread.



Realize stable anti-loosening performance

3. Keeping loosening torque.



Once the bearing surface step away, still friction is keeping.

Once the bearing surface step away, easy to loose.

NITTOSEIKO CO.,LTD.

Fastener Division
Global Sales Section

Website：https://www.nittoseiko.co.jp/en.html

【Website】 【Inquiry Form】

IATF16949 JP18/063026
ISO9001 JP17/062866
ISO14001 E0954
*Registered Scope
·Main Factory
·Yata Factory