



New-generation
Self-tapping screw

TAPTITE 2000[®]

Lubricant for stable
friction coefficient

FRIX[™] 009

Self-tapping,

an unwavering

reliability

180-degree change

of the future of fastening for automotive parts

- ✓ The realization of self-tapping by High-tension bolt ※Metric property class 10.9
- ✓ High axial force performance equivalent to bolt fastening
- ✓ It can be fastened with high reliability by the stable axial force.
- ✓ Realize total cost down by self-tapping

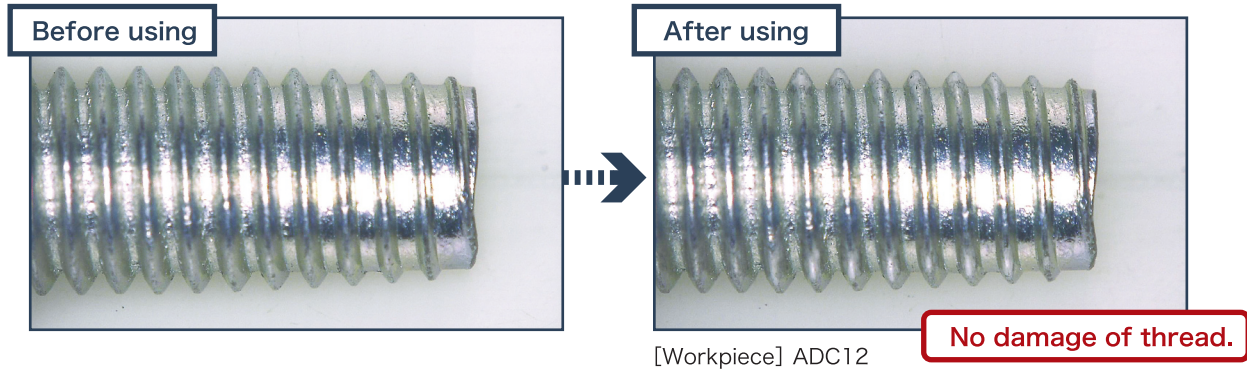
We can propose a special specification screw which can be thread formed to the high tensile strength steel 100 (980MPa).

Fastening Solution.
Toward a new future of manufacturing technology

NITTO SEIKO

Fastening test on the aluminium workpiece

【 TAPTITE2000® (Property class 10.9) + FRIX™009 】



Comparative investigation of axial force performance

【 To the aluminum workpiece by TAPTITE2000® (φ8) 】

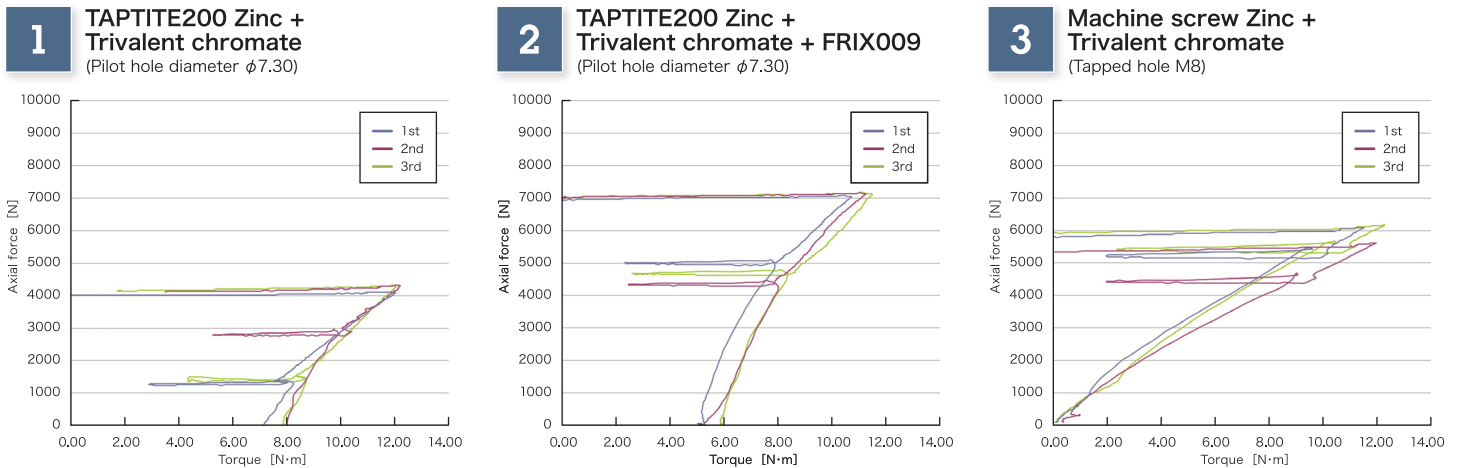
Screw

- 1 TAPTITE2000 (φ8x30 · Hexagon head with flange) ※Plating : Zinc + Trivalent chromate
- 2 TAPTITE2000 (φ8x30 · Hexagon head with flange) ※Plating : Zinc + Trivalent chromate + FRIX009
- 3 Machine screw (φ8x30 · Hexagon head) ※Plating : Zinc + Trivalent chromate

Fastening object material SPCC / Thickness t=2.5 Axis force sensor / Thickness t=12.0 Spacer / Thickness t=5.0

Workpiece ADC12

Tightening torque 1st step torque 8.00 N·m (Rotation speed 300rpm) 2nd step torque 12.00 N·m (Rotation speed 50rpm)



Axial tension test result		1st	2nd	3rd	Max. Value	Ave. Value	Min. Value
1	TAPTITE200 Zinc + Trivalent chromate	4110	4320	4320	4320	4250	4110
2	TAPTITE200 Zinc + Trivalent chromate + FRIX009	7080	7170	7170	7170	7140	7080
3	Machine screw Zinc + Trivalent chromate	6090	5610	6180	6180	5960	5610

NITTO SEIKO CO.,LTD.

Fastener Division Global Sales Section

1-6-4, Honjo-nishi, Higashiosaka city, Osaka, 578-0965, Japan

Tel +81-6-6745-8392 Fax +81-6-6745-8372

E-mail: sales@nittoseiko.co.jp

URL: <http://www.nittoseiko.co.jp/>



ISO9001/ISO14001
ASR Co., Ltd.
Registration No. Q2461
Registration No. E0954