



# Look at this perfect thread !

Shows the ability of  
anti loosening under the severe  
condition such as vibration and  
temperature changing.

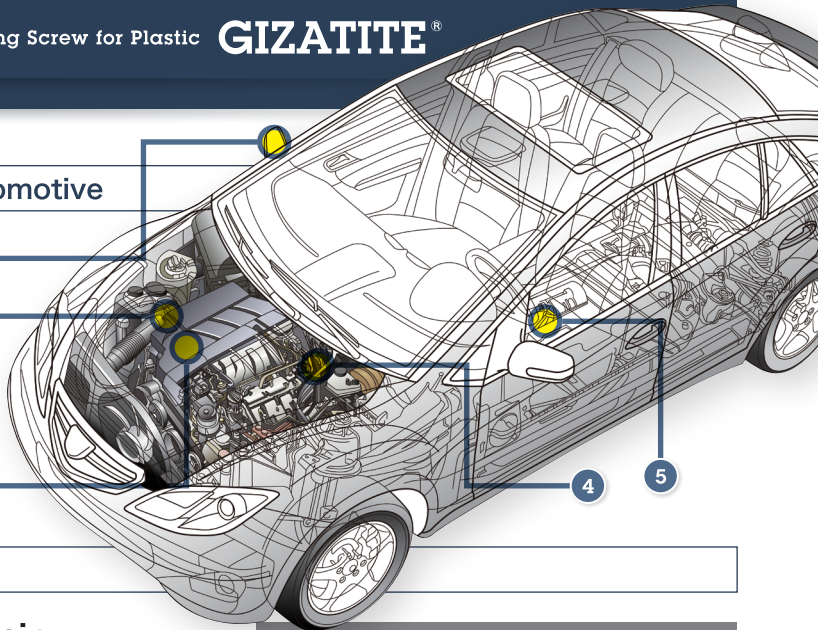
Self-tapping Screw  
for Plastic

## GIZATITE®

- ✓ Completely resists loosening from vibration and temperature change.
- ✓ Relieves internal stress by sharp thread angle and prevents cracking of boss.
- ✓ Possible to manufacture by aluminium for weight saving.

Fastening Solution.  
Toward a new future of manufacturing technology

## NITTO SEIKO



TECHNICAL REPORT 01

## Major usage example of automotive

- 1 Door mirror
- 2 Mass flow sensor
- 3 Intake manifold
- 4 Water pump
- 5 Window regulator

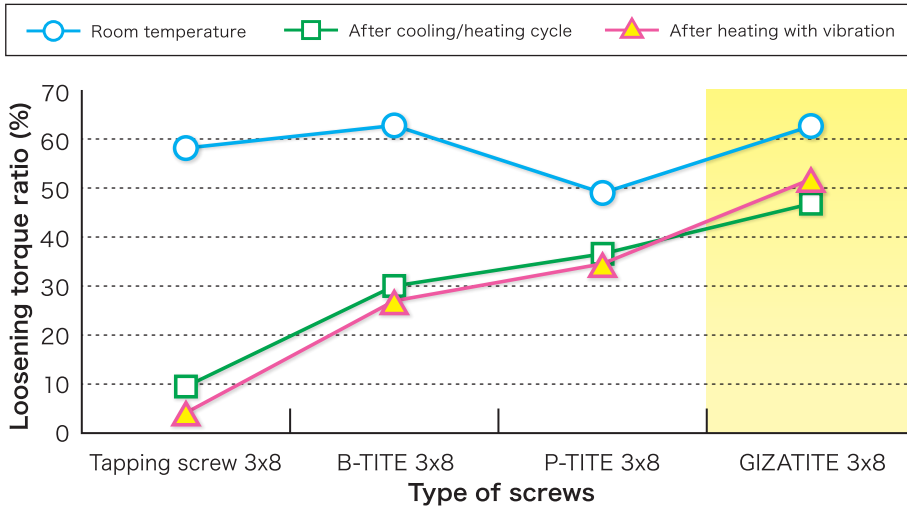
TECHNICAL REPORT 02

## Performance comparison

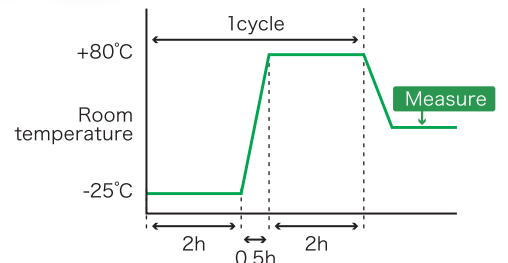
### Loosening torque comparison to ABS resin

Loosening torque ratio : Loosening torque / Tightening torque

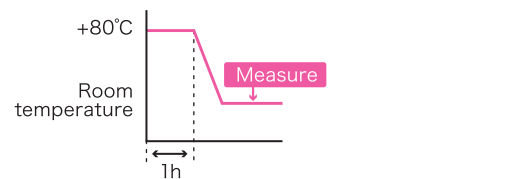
※Tightening torque=0.8N·m



Cooling/Heating cycle



Heating - Vibration



[ Vibration condition ]  
 Put a load on test piece of one side  
 Time:1 hour Amplitude:2mm  
 Frequency:33.3Hz Vibration acceleration:4.4G

TECHNICAL REPORT 03

## Repeated loosening torque performance (Room temperature)

- Screw : GTP3×12 Zinc + Trivalent Chromate
- Workpiece : PBT+GF55% Pilot hole 2.60
- Fastening object material : SPCC t=3.6

[N·m]

	Repeated use number										Average value
	1st time	2nd time	3rd time	4th time	5th time	6th time	7th time	8th time	9th time	10th time	
Tightening torque	0.71	0.84	0.77	0.76	0.86	0.92	0.90	0.87	0.81	0.87	0.831
Loosening torque	0.58	0.57	0.57	0.60	0.63	0.62	0.65	0.65	0.69	0.65	0.621
Loosening torque ratio	82%	68%	74%	79%	73%	67%	72%	75%	85%	75%	74.7%

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

IS000915 1st printing