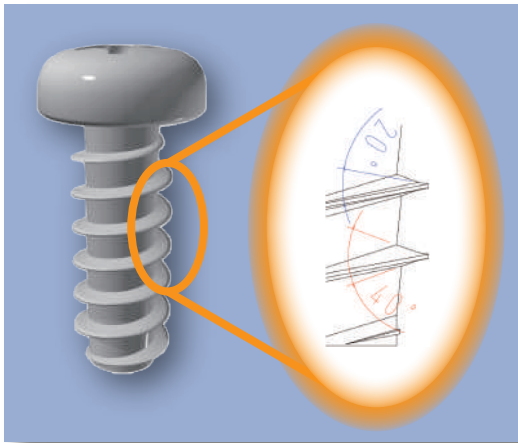


M-TITE[®] PAT

Outline of M-TITE[®]

M-TITE[®] has been developed to be a solution for fastening problems at thermoplastic applications such as;

- Crack on High-strength plastic.
- Boss damage on Alloy-plastic.
- Loosening of screw after heat exposure.
- Available from M1.4 to M6.



Special features

M-TITE[®] is special screw with;

- Wide thread pitch 2 times + of flank height
- 20° & 40° of integrated thread profile
- Wedge shaped thread root
- Trirobular body

M-TITE[®] special features provides you benefits such as;

- Higher drive-to-strip ratio which allows to fasten various grades of plastics.
- Elimination of boss cracking by dispersing stress on plastic.
- Higher holding force by maximizing thread engagement area.
- Improvement of anti-loosening performance under heat exposure and vibration.

Application

Home appliance

- Power tools
- Printer

Automobile

- Inlet system (Air cleaner, Air flow meter)
- Accelerator pedal
- Electric Power Steering
- Tonneau cover

M-TITE[®] PAT

Performance of M-TITE[®]

1. Torque Performance Test at variety of Pilot Hole Diameter

[N · m]

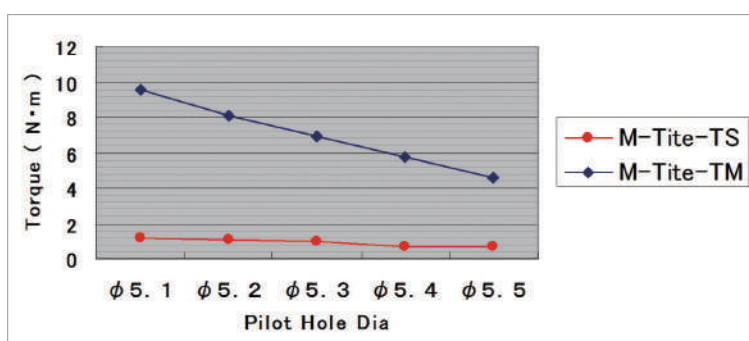
Pilot Hole		Data			Average	TS max. TM min.	Drive-to-strip torque	Proper Tightening Torque: Tf (TS max. X 1.5 ~ TM min. X 0.65)
		1	2	3				
Φ5.1	TS	1.20	1.00	1.15	1.11	1.20	8.000	Tf = 1.80 ~ 6.24 N · m
	TM	9.90	9.75	9.60	9.75	9.60		
Φ5.2	TS	0.90	1.00	1.10	1.00	1.10	7.364	Tf = 1.65 ~ 5.27 N · m
	TM	8.30	8.20	8.10	8.20	8.10		
Φ5.3	TS	1.00	0.90	0.80	0.90	1.00	6.900	Tf = 1.50 ~ 4.49 N · m
	TM	7.20	6.90	7.20	7.10	6.90		
Φ5.4	TS	0.70	0.65	0.65	0.67	0.70	8.286	Tf = 1.05 ~ 3.77 N · m
	TM	6.00	5.80	5.80	5.87	5.80		
Φ5.5	TS	0.60	0.65	0.60	0.62	0.65	7.077	Tf = 0.98 ~ 2.99 N · m
	TM	4.80	5.10	4.60	4.84	4.60		

● Test condition
 Screw : M-Tite Hexagon head
 M6 x 25
 Liner : SPCC t = 1.4 mm
 Mated part : PP + G 30%

(Note)

TS: Installation torque

TM: Stripping torque Drive-to-strip torque ratio: TM min./TS max.



2. Removal torque

[N · m]

Pilot Hole Dia.	Drive Torque (A)	Data		Average (B)	A ÷ B (%)
		1	2		
Φ5.1	3.0 N · m	1.90	1.70	1.80	60.0%
Φ5.2	3.0 N · m	1.80	1.70	1.75	58.3%
Φ5.3	3.0 N · m	1.60	1.60	1.60	53.3%
Φ5.4	3.0 N · m	1.60	1.70	1.65	55.0%
Φ5.5	3.0 N · m	1.60	1.70	1.65	55.0%

3. Load carrying capability

[N · m]

Mated Part	Data				
	Φ5.1	Φ5.2	Φ5.3	Φ5.4	Φ5.5
PP+G 30%	6,550	5,720	5,120	5,160	4,170

*Trademarks which attached "®" are registered in Japan and/or other countries.

*Patented in Japan and other country.