



## ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

|                                                  |                     |
|--------------------------------------------------|---------------------|
| HOOK/LOOP TAPE FASTENER, BACK SIDE SELF ADHESIVE | SK-M3G9512-A        |
| HOOK/LOOP TAPE FASTENER, BACK SIDE SELF ADHESIVE | SK-M3G9512-AA       |
| HOOK/LOOP TAPE FASTENER, BACK SIDE SELF ADHESIVE | SK-M3G9512-AB       |
| HOOK/LOOP TAPE FASTENER, BACK SIDE SELF ADHESIVE | DELTA SK-M3G9512-BA |
| HOOK/LOOP TAPE FASTENER, BACK SIDE SELF ADHESIVE | DELTA SK-M3G9512 BB |

## 1. SCOPE

The material defined by this specification is a tape fastener consisting of:

SK-M3G9512-AA/DELTA SK-M3G9512-BA: Hook tape, back side self adhesive, covered with release sheeting.

SK-M3G9512-AB/DELTA SK-M3G9512-BB: Loop tape, back side self adhesive, covered with release film.

## 2. APPLICATION

These specifications were released originally for materials used to retain auxiliary floor panel to body.

## 3. REQUIREMENTS

Note: All test values indicated herein are based on materials conditioned in a controlled atmosphere of 23 +/- 2 C and 50 +/- 5 % relative humidity for 24 h prior to testing and tested under the same controlled conditions.

## 3.1 ADHESIVE BACKING

3.1.1 Peel Strength  
(ASTM D 1000-76, clause 36 to 38 except enameled panel acc to FLTM EU-BI 3-2, Method C; the tape has to be carefully bonded so that it will be in perfect alignment)

3.1.1.1 Original, min 10 N/cm

3.1.1.2 After Ageing  
(14 d at 70 C +/- 2 C, 1 h at room temperature)

Maximum - 10 % based on measured original value.

| Date       | Release No.  | Released                          |
|------------|--------------|-----------------------------------|
| 1994 12 01 |              | Revised and Retyped, was 11 pages |
| 1985 04 12 | B/001677 TP  | New Suffixes/Flammability added   |
| 1980 08 08 | B/402 957 TP | Last Released                     |

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- 3.1.1.3 After Humidity Ageing  
(16 h at 38 +/- 2 C and  
98 +/- 2 % relative humidity)

Maximum - 10 % based on measured original value.

3.1.2 Shear Strength

Test Method: Bond the tape carefully to an enameled panel (prepared according to FLTM EU-BI 3-2, Method C) so that it will be in perfect alignment. Bonding area shall be 15 x 15 mm.

Clamp both ends of the assembly in the jaws of a tensile testing machine and determine the force required to separate the parts. Separation rate 25 mm/minute.

- 3.1.2.1 Original, min 65 N/cm<sup>2</sup>  
(1 h at room temperature after bonding)
- 3.1.2.2 After Ageing No loss of adhesion  
(14 d at 70 C +/- 2 C, 1 h at room temperature)

- 3.1.3 Softening Point, min 90 C

Test Method: ASTM D 816; except use specimens according to 3.1.2 and apply a force of 2.03 N to each specimen; maintain oven temperature at 50 C for 15 minutes and then increase 2.5 C/5 minute until bond failure.

3.2 HOOK AND LOOP TAPE COMBINATION

- 3.2.1 Thickness of Closed Tape Fastener 2.0 - 4.0 mm  
(Slide gauge; pressure to close the tape fastener: 20 N/cm<sup>2</sup>)
- 3.2.2 Width of Tape Fastener 14 - 16 mm or as specified on Engineering drawing
- 3.2.3 Color Black or as specified on the Engineering drawing
- 3.2.4 Mass 0.38 - 0.70 kg/m<sup>2</sup>  
(Without release film)



- 3.2.5 Tensile Strength  
(ASTM D 1682; except use tape 14 -16 mm in width, measuring speed 300 mm/minute)
- SK-M3G9512-AA/AB
- Hook Tape, min 500 N/15 mm
- SK-M3G9512-BA/BB
- Loop Tape, min 400 N/15 mm
- 3.2.5.1 Elongation 10 - 70 %
- 3.2.6 Hook/Loop Adhesion
- Test Method:
- 1) Prepare test specimens according to Fig 1.
  - 2) To close the tape fastener apply a load of 20 N/cm<sup>2</sup>.
  - 3) Closure and separation rate for cycling: 300 mm/minute.
  - 4) Separation rate for adhesion test 25 mm/minute.
- 3.2.6.1 Original, min 10 N
- Adhesion of adhesive backing of the tapes must be higher than adhesion of hook to loop tape.
- 3.2.6.2 After Cycling, min 10 N  
(3000 closures and openings)
- 3.2.7 Hook/Loop Peel Adhesion, min 2.0 N/cm
- Test Method:
- 1) ASTM D 1000
  - 2) Bond hook tape under maximum hand pressure to an enameled panel prepared according to FLTM EU-BI 3-2, Method C.
  - 3) Determine peel adhesion for both directions.
- 3.2.8 Hook/Loop Shear Strength, min 5.0 N/cm<sup>2</sup>
- Test Method:
- 1) Use 100 mm long pieces of tape.
  - 2) Fit hook and loop tape together for an area of 50 x 15 mm using a pressure of 20 N/cm<sup>2</sup>.