

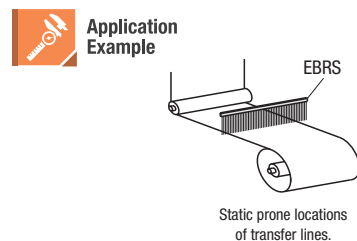
# Neutralizer Brush / Conductive Copper Foil Tape / Neutralizer Tape

### Neutralization Brushes

| Type | Material            |                             |
|------|---------------------|-----------------------------|
|      | Holder              | Brush                       |
| EBRS | 1050 Aluminum Alloy | 304 Stainless Steel (12 μm) |

Ⓢ When L≥20, there will be three holes at 100 mm from both ends and the center.

| Part Number |    | L<br>1mm Increment |
|-------------|----|--------------------|
| Type        | H  |                    |
| EBRS        | 10 | 50-500             |
|             | 20 |                    |



**Part Number Example**  
EBRS10 - 500

### Conductive Copper Foil Tape

ECTP

**Material:** Main Body: Copper  
Adhesive Part: Conductive Adhesives

| Part Number |        | L<br>(Meter) | T<br>(mm) |
|-------------|--------|--------------|-----------|
| Type        | W (mm) |              |           |
| ECTP        | 50     | 10           | 0.08      |

**Part Number Example**  
ECTP50

- Ⓢ L dimension is in meters.
- Ⓢ Peel off backing paper to adhere it to an object. Clean off any oil or dust that may be on the mating surface.
- Ⓢ Can be cut with a utility knife.

### Neutralization Tapes

| Type | Material |  |
|------|----------|--|
|      | ELTA     | (1) Silver Plating Polyester Fiber<br>(2) Electric Conductivity Acrylic Adhesive Layer |

| Part Number |    | L<br>1mm Increment | T   |
|-------------|----|--------------------|-----|
| Type        | W  |                    |     |
| ELTA        | 10 | 20-500             | 0.6 |
|             | 25 |                    |     |
|             | 50 |                    |     |

**Part Number Example**  
ELTA10 - 500

# Brush Overview

## General Information

The soft and resilient filament characteristics are well suited for various industrial uses; such as parts leveling, dusting and washing. General purpose bar type Channel Brush and Roll Brush are offered. Additionally, MISUMI original attachment brackets are provided.

## Features of Channel Brush

The Channel Brush has filaments arranged in a grid pattern (Mfg. method is shown on the right.) More economical than planted filament brush.

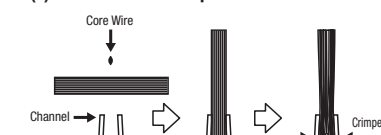
## About the Filament Materials

6 Nylon: General purpose material. Good anti-wear, fatigue resistance, and resiliency characteristics suitable for long term operation. Also usable in food processing. Maximum temp limit for the filaments is 100°C. Care should be taken since Nylon 6 dissolves in strong hydrochloric acid, sulfuric acid, formic acid, and phenolic acid.

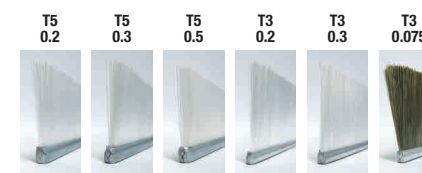
Thunderon®: Thunderon® is an organic conductive fiber made by copper sulfide chemically bonded to acrylic fiber. It's more flexible than thin wire and carbon fiber materials, and has excellent wear resistant characteristics. Used for anti-static measures. The conductive fiber has static neutralizing functionality.

### Mfg. Method

- Filaments are held within the channel with a core wire.
- The channel is crimped from both sides.

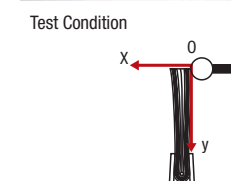
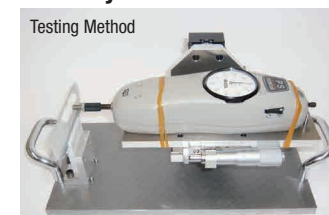


## Filament Diameter of Channel Brush (For 30 mm H)



| Part Number (Filament Material) | Filament Diameter (No) | Features                        |
|---------------------------------|------------------------|---------------------------------|
| BRUSN (Nylon 6)                 | 0.2                    | Feel of Tooth Brush (Normal)    |
|                                 | 0.3                    | Harder than Tooth Brush (Hard)  |
|                                 | 0.5                    | Feel of Deck Brush              |
| BRUSE (Thunderon®)              | 0.075                  | Diameter of average human hair. |

## Elasticity Test of Channel Brush

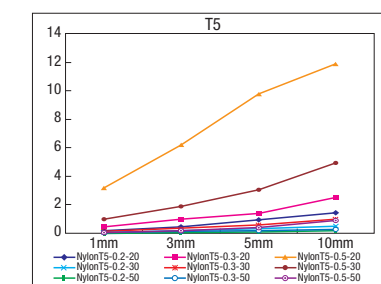
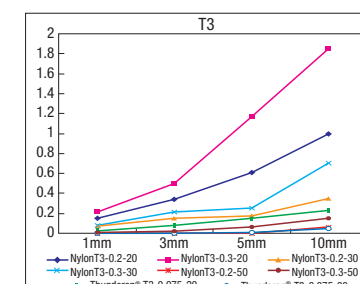


Loads are measured while the filament tip (y0-1mm) is pushed in X direction to cause the leaning of 1, 3, 5, and 10 mm. Actual measurements are for reference only. Not a guarantee.

See the test condition on the left

| Model No. (Material) | T | Brush Test Samples     |                        | Load(N) in X - mm Direction |      |      |       |
|----------------------|---|------------------------|------------------------|-----------------------------|------|------|-------|
|                      |   | Filament Diameter (No) | Filament Length (H) mm | 1 mm                        | 3 mm | 5 mm | 10 mm |
| BRUSN (Nylon 6)      | 5 | 0.2                    | 20                     | 0.18                        | 0.45 | 0.95 | 1.45  |
|                      |   | 0.3                    | 20                     | 0.45                        | 0.98 | 1.40 | 2.50  |
|                      |   | 0.5                    | 20                     | 3.20                        | 6.20 | 9.80 | 11.90 |
|                      |   | 0.2                    | 30                     | 0.05                        | 0.16 | 0.33 | 0.50  |
|                      |   | 0.3                    | 30                     | 0.13                        | 0.34 | 0.60 | 0.98  |
|                      |   | 0.5                    | 30                     | 1.00                        | 1.90 | 3.05 | 4.95  |
|                      | 3 | 0.2                    | 50                     | 0.01                        | 0.06 | 0.07 | 0.16  |
|                      |   | 0.3                    | 50                     | 0.06                        | 0.15 | 0.16 | 0.26  |
|                      |   | 0.5                    | 50                     | 0.06                        | 0.20 | 0.42 | 0.88  |
|                      |   | 0.2                    | 20                     | 0.15                        | 0.34 | 0.61 | 1.00  |
|                      |   | 0.3                    | 20                     | 0.21                        | 0.50 | 1.17 | 1.85  |
|                      |   | 0.5                    | 20                     | 0.07                        | 0.15 | 0.17 | 0.35  |
| BRUSE (Thunderon®)   | 3 | 0.2                    | 30                     | 0.08                        | 0.21 | 0.25 | 0.70  |
|                      |   | 0.3                    | 30                     | —                           | —    | —    | 0.06  |
|                      |   | 0.5                    | 30                     | 0.01                        | 0.02 | 0.06 | 0.15  |
| BRUSE (Thunderon®)   | 3 | 0.075                  | 20                     | 0.02                        | 0.08 | 0.15 | 0.23  |
|                      |   | 0.075                  | 30                     | —                           | —    | 0.01 | 0.05  |

Ⓢ Values are for reference only, not guaranteed.



## Notes on Use

- Brush service life will vary depending on usage conditions and frequency. The filaments may break or fall out depending on usage condition. Do not tug on the filaments.
- Maximum temp limit for the filaments is 100°C. The filaments will melt and fall off above 100°C.
- Nylon 6 dissolves in strong hydrochloric acid, sulfuric acid, formic acid, and phenolic acid.
- Brush press contact length should be 2 mm or less. Do not press further than necessary.
- Do not disassemble the brush.
- Do not bend the Channel Brush.
- The Channel Brush has ±2 mm bow/bend per L100 mm.
- Use the brush at less than 1,000 RPM.

## Use & Storage Cautions

- For storage, care should be taken so that the filaments are not plastically deformed. If the brush is left in contact with work/fixture while in storage, the filaments may be deformed permanently. Additionally, avoid filament tips from contacting anything when storing the brush by itself.
- Dry before storage.
- Remove any foreign objects from the brush.
- Do not use in high temp. environment or near fire.