Metal Bond Blades

**TM11 SERIES**

Metallic blades that realize higher rigidity

**Improved blade rigidity**

By employing a high-rigidity bond, the TM11 series realizes a higher rigidity which exceeds that of electroformed blades, preventing wavy and slanted cutting, and improving processing speed.

**Exhibits the full ability of a thin blade**

Even in applications which use thin blades, the TM11 series achieves highly parallel processing and improves processing speed and quality by upgrading the rigidity.

**Stable processing is possible due to long blade exposure**

Due to its high rigidity, the TM11 series is good for applications that require a long blade exposure.

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**Correlation between Rigidity and Amount of Wear**

- **Low Rigidity** leads to **Large Blade wear**
- **High Rigidity** leads to **Small Blade wear**

**Applications**

- Raw ceramic, various types of packaging substrate
Compared to existing blades, wavy cutting is less likely to occur with the TM11 series due to its higher rigidity.

### Grit Size

- SD 400
- SD 600
- SD 800
- SD 1000
- SD 1200
- SD 1400

### TM11 - SD 800 - MC100 - 50 - A****

**Grirt Type** | **Grit Size** | **Bond** | **Concentration** | **Special Specification** | **O.D** | **Thickness** | **Thickness accuracy** | **I.D**
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SD | 400 #400 | MC100 | 50 | | | A1 ±0.002 | | |
SD | 600 #600 | | | | | A2 ±0.005 | | |
SD | 800 #800 | | | | | A3 ±0.010 | | |
SD | 1000 #1000 | | | | | A4 ±0.015 | | |
SD | 1200 #1200 | | | | | | | |
SD | 1400 #1400 | | | | | | | |

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**Experimental Data**

**Comparison of Rigidity**

| Blade | TM11-SD1000-MC100-50 | Z05-SD1000-D1-60 |
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Blade rigidity (Z05 = 100) | \(0 \text{ to } 200\) | \(0 \text{ to } 250\) |

**Correlation between Amount of Wavy Cutting and Feed Speed**

- **Workpiece**: Dummy ceramic
- **Spindle revolution**: 35000 min\(^{-1}\)
- **Feed speed**: 100 → 200 → 300 → 400 → 500 mm/s
- **Blade**: TM11-SD800-MC100-50
  - Z05-SD800-D1-60

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**When Ordering**

Please contact a DISCO representative with your product needs such as type, wheel size, and quantity.

When placing your first order with us, please explain the application, such as materials to grind, sizes, machine, type, and other specifications. We are ready to help you to determine which of our products is the most suited to your application.

Due to improvements in our products, it is possible that product specifications may be changed without advanced notice. Please confirm the product specifications with a DISCO representative.

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To use these DISCO blades and wheels (hereafter precision tools) safely...

- USE a safety cover (nozzle case, cover) equipped as a standard accessory to avoid injury.
- DO NOT EXCEED the specified rpm limit indicated on the precision tool.
- FOLLOW the instruction manual for the equipment to mount the precision tool properly.
- DO NOT DROP OR HIT the precision tool. This may cause breakage or injury.
- Always CHECK the precision tool for chipping or any other damage before using it. DO NOT USE the tool if there is any damage.
- READ the operation manual of the cutting/grinding equipment before use.
- DO NOT USE the precision tool with modified or customized equipment.
- DO NOT USE a precision tool that has a different size from the one recommended for your equipment.
- DO NOT USE the precision tool for any other purpose than grinding, cutting, or polishing.
- Always USE water or coolant to prevent damage to the precision tool.

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All DISCO products are covered by product-liability insurance.