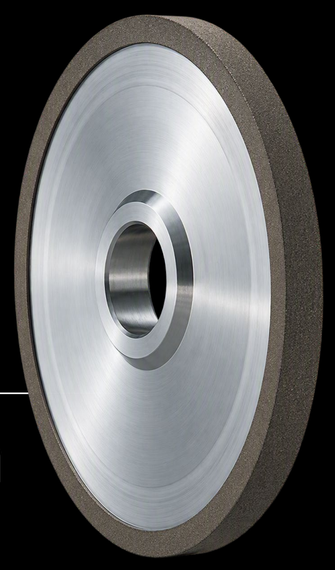
Solutions Matched to Die and Mold Grinding

Resin Diamond Wheel

Teramate Premium



Challenges	Would like to achieve a step-free mirror finish on dissimilar materials?	Would like to shorten machining time?
Solutions	Achieve Step-Free Mirror Finishing by Simultaneously Grinding Dissimilar Materials	Consolidate Three Processes into Two to Shorten Machining Time

CORE TECHNOLOGY

Technical features

Bond Combining Cutting Ability and Wear Resistance

Effects in grinding

Improved Cutting Ability / Improved Retention of Cutting Ability / Reduced Abrasive Grain Shedding Caused by Bond Deterioration

Performance data

Performance Example

Simultaneous Surface Grinding of Dissimilar Materials

Workpiece	SKD11 + Cemented Carbide Block, 300 × 60 (Cemented Carbide: 200 × 30)	
Step between SKD11 and Cemented Carbide		Approx. 0.12 μm
Surface Roughness	SKD11	Ra 8.7 nm / Rz 60.3 nm
	Cemented Carbide	Ra 5.8 nm / Rz 45.0 nm



Performance Example

Shorter Machining Time through Process Consolidation

Evaluation example | Workpiece | Carbide (□105 × 105)

Conventional product

- Rough grinding wheel #200
- Medium rough grinding wheel #800
- Finish grinding wheel #2000 — Cutting depth for rough grinding: 0.5μm

Teramate — Process integration

- Rough grinding wheel #200
- Finish grinding wheel #2000 — Cutting depth for rough grinding: 2μm; Cutting depth for finish grinding: 0.5μm

Surface roughness of workpieces

Ra：16.8nm　Rz：85.3nm（JIS2001）

JTEKT GRINDING TOOLS CORPORATION