

# Diamond Tools for Grinding Machines

**Diamond tools** are used as expendables to grinding machines to take off the surface layer of concrete, stone, wood and other foundations. Diamond tools consist of a metal plate with soldered on it diamond or carbide segments.

Tools specification consists of:

1. **Segment form:** **R** (rectangular), **C** (circle). **Clarification:** the more sharp edges there are in the segments, the rougher and the more aggressive (more productive) is surface grinding, and the more the segments hold against the load impact. The fewer edges, as for example in case of circle segments, the fewer scratches are left on the surface.
2. **Bond type** in the segment: **S** (soft bond for hard concrete), **N** (normal bond for medium concrete), **H** (hard bond for soft concrete). **Clarification:** the softer the concrete, the harder bond is recommended, and vice-versa. For very soft concrete and sand-cement coverings, tungsten carbide (**TC**) tools are recommended.
3. **Segments quantity:** number from “1” to “2”. **Clarification:** the smaller the total working area of segments, the more the pressure on the processed foundation, and consequently the more aggressive and productive the grinding, but the less the segments lifetime (fast wear).
4. **Grain size in grit:** number from “16” to “150”, which corresponds to the numbers: 16 grit – black, 30 grit – brown, 60 grit – grey, 100 grit – yellow, 150 grit – white. **Clarification:** the larger the diamond grain (the smaller the grit number), the more aggressive and productive is surface grinding.

The correct choice depends on:




1. **Surface flatness** – the choice on load impact. Rectangular segments are more preferable.
2. **Porosity of concrete foundation** – the choice of the number of segments. Larger amount of segments is more preferable.
3. **Hardness of concrete foundation** – the choice of segment bond. Soft bond is more preferable for hard foundations, and vice-verse.
4. **Required surface roughness** – the choice of segment form and grit. Circle segments with small grains 150 grit are more preferable for even foundations.

Diamond tools have 2 types of fastening, adapted for all trapezoid-form plates: *three screwed holes*, and additionally *three plain holes for pins* to fix on magnet tool discs.

As an example, diamond tools are **classified according to the number of segments and its form as following:**

Number of segments / Segment Form	R (rectangular)	C (circle)	Price
«1»			
«2»			

Diamond tools are classified according to grit and bond as following:

Diamond Tools for Grinding for GPM 240/400/500/750						
Grit / Colour	soft concrete	normal concrete		hard concrete		Application
grit 16 / Black	 RH 2-16	 RN 1-16	 RN 2-16	 RS 1-16	 RS 2-16	very coarse grinding
grit 30 / Brown	 RH 2-30	 RN 1-30	 RN 2-30	 RS 1-30	 RS 2-30	coarse grinding
grit 60 / Grey	 RH 2-60	 RN 1-60	 RN 2-60	 RS 1-60	 RS 2-60	medium grinding
grit 100 / Yellow	 RH 2-100	 CN 1-100	 CN 2-100	 CS 1-100	 CS 2-100	fine grinding
grit 150 / White	-	 CN 1-150	 CN 2-150	 CS 1-150	 CS 2-150	super-fine grinding
	hard - "H"	normal - "N"		soft - "S"		
	Metal-Bond Type					
Tungsten-carbide (TC) / Beige						for cement-sand coverings

## Pads for Grinding Machines

Pads are used as expendables for grinding and polishing machines for finish processing of concrete, stone, wooden and other surfaces after processing with diamond tools, by gradually increasing surface shine.

Pads, abrasive cloth, felted circles, etc. are attached to the transitional tool disc of a grinding machine on an adhesive tape that provides an easy and quick tool changing.

The larger the number, indicating pad or other tool number, the less is abrasive grit, and it corresponds to obtaining higher surface shine.

Specification	Picture	Price
Polishing pad for concrete and stone 100 mm / 175 mm: 100/200/400/600/800/1500/3500	