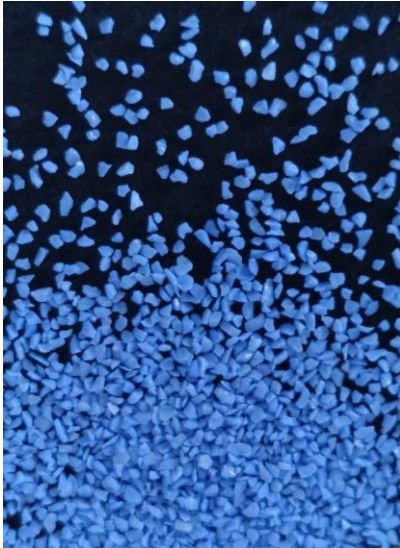


# RECERAMAX® RE-MS

## Properties

RECERAMAX® RE-MS is a modified version of RECKEL's microcrystalline ceramic grain with a more solid, blocky shape. Due to special microstructure the grain generates a self-sharpening effect during its usage. Produced following a very certain sol-gel-technology that RECKEL developed, RECERAMAX® RE-MS sets a higher standard for high performance - Bonded Abrasive tools.



Ceramic Grain	RECERAMAX® RE-MS
Grain Type	microcrystalline sintered ceramic grain
Grain Profile	blocky
Grain Color	blue
Grit Size Standard	FEPA - F
Grit Size Range	F 16 – F 80
Hardness Vickers (kN/mm <sup>2</sup> )	19,5 - 21
Grain Density (g/cm <sup>3</sup> )	3,85 – 3,97
Bulk Density (g/cm <sup>3</sup> )	1,75 – 2,05 (due to grit size)

By a special combination of ductility, toughness and microcrystalline structure RECERAMAX® RE-MS generates a high resistance against grain breakout in every direction of its shape (**Multilateral Solid**). A self-sharpening effect is a further enhancement of the grains. This led to a regenerating of the cutting edge, renewed through microstructural fracturing. Characteristic benefits are:

- reduced grinding forces
- self-sharpening during the grinding process
- less workpiece stress under high stock removal
- low grinding temperatures even with heavy-duty grinding
- long lifetimes of the grinding tools

RECERAMAX® RE-MS grains get a blocky shape with the use of a new fracturing process, without losing its sharp cutting edges. Additionally, these grains got a higher bulk density, which is preferable for the use in resin and ceramic Bonded Abrasive tools. The temperature resistance in the hardening process of Bonded Abrasives is 1.430°C.

## Availability

RECERAMAX® RE MS ceramic grain is classified according FEPA – F, which is relevant for Bonded Abrasives and comes in F 16 to F 80.

RECERAMAX® RE MS	F 16	F 20	F 24	F 30	F 36	F 40	F 46	F 54	F 60	F 80
FEPA - F	x	x	x	x	x	x	x	x	x	x

# RECERAMAX® RE-MS

## Packaging

RECKEL RECERAMAX® ceramic grains come in paper bags of 25 kg. Special sizes are available on request.

## Storage

RECKEL RECERAMAX® ceramic grains should be protected from frost, heat and other extreme circumstances.

## Chemical Properties

Constantly chemical and physical tests during the whole production process of all RECERAMAX® grain types ensure its sustainable quality. All test processes are part of an internationally approved quality control.

chemical element	wt %
Al <sub>2</sub> O <sub>3</sub>	94 – 95
La <sub>2</sub> O <sub>3</sub>	1,9 – 2,3
MgO	0,75 – 1

chemical element	wt %
Y <sub>2</sub> O <sub>3</sub>	0,75 – 1
Nd <sub>2</sub> O <sub>3</sub>	1 – 1,5
CoO	0,01 – 0,024

## Applications

RECERAMAX® products offer our customers ceramic grain types with high efficiency. Thus, a wide range of applications in different fields are approachable. Constantly, our customers open new market fields in close collaboration with our abrasive experts.

## Tools

### Bonded Abrasives

- grinding wheels and rollers
- rapid-cut wheels
- grinding segments
- cutt-off and roughing wheels

## Applications

- ID and OD gear
- Crank- and Camshafts
- Bearings
- hardened precision parts
- medical parts and implants
- tubes, rods, spindles, rollers
- metal surface stock removal and finishing
- cutting and roughing

Note: The information contained in this document is believed to be accurate and reliable without guarantee or warranty on the part of Reckel GmbH. Furthermore, nothing presented herein should be interpreted as an authorization to break laws or safety regulations.