



**GRINTEC MAGOTTEAUX**  
CERAMIC TECHNOLOGY

# KERAMAX®

## CERAMIC BEADS FOR FINE AND ULTRA-FINE GRINDING

| Keramax | AVAILABLE BEAD DIAMETER |           | TYPICAL PROPERTIES             |                                |          |   |                                     |                                  |                |        |
|---------|-------------------------|-----------|--------------------------------|--------------------------------|----------|---|-------------------------------------|----------------------------------|----------------|--------|
|         | mm                      | inch      | Chemical Components            |                                |          | Typical Specific density (g/cm <sup>3</sup> ) | Bulk density (tons/m <sup>3</sup> ) | Typical Hardness (Vickers, Hv10) | Sphericity (%) | Color  |
| A       | 0.5-6                   | 0.02-0.24 | SiO <sub>2</sub>               | Al <sub>2</sub> O <sub>3</sub> | + others | 2.8   | ~1.6                                | 700                              | 99             | white  |
| D       | 0.5-6                   | 0.02-0.24 | Al <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub>               | + others | 3.1   | ~1.8                                | 800                              | 99             | white  |
| C       | 0.5-6                   | 0.02-0.24 | Al <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub>               | + others | 3.2   | ~1.9                                | 1000                             | 99             | white  |
| B       | 0.5-6                   | 0.02-0.24 | Al <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub>               | + others | 3.7   | ~2.2                                | 1300                             | 99             | white  |
| M       | 0.5-6                   | 0.02-0.24 | Al <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub>               | + others | 3.7   | ~2.2                                | 1300                             | 99             | white  |
| M+      | 0.5-3.5                 | 0.02-0.14 | Al <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub>               | + others | 3.7   | ~2.2                                | 1300                             | 99             | white  |
| Z       | 0.5-6                   | 0.02-0.24 | Al <sub>2</sub> O <sub>3</sub> | ZrO <sub>2</sub>               | + others | 4.1   | ~2.3                                | 1500                             | 99             | white  |
| E       | 0.5-3                   | 0.02-0.12 | ZrO <sub>2</sub>               | SiO <sub>2</sub>               | + others | 4.1   | ~2.4                                | 1100                             | 99             | white  |
| F       | 0.5-5                   | 0.02-0.2  | ZrO <sub>2</sub>               | Al <sub>2</sub> O <sub>3</sub> | + others | 5.0   | ~2.9                                | 1200                             | 99             | white  |
| N       | 0.5-5                   | 0.02-0.2  | ZrO <sub>2</sub>               | Al <sub>2</sub> O <sub>3</sub> | + others | 4.7   | ~2.8                                | 1200                             | 99             | yellow |
| G       | 0.5-25                  | 0.02-0.98 | ZrO <sub>2</sub>               | Y <sub>2</sub> O <sub>3</sub>  | + others | 6.0   | ~3.5                                | 1300                             | 99             | white  |
| H       | 0.5-4                   | 0.02-0.16 | ZrO <sub>2</sub>               | CeO <sub>2</sub>               | + others | 6.1   | ~3.6                                | 1050                             | 99             | yellow |





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## CERAMIC BALLS FOR ALL GRINDING APPLICATIONS

|      |       |       |       |       |       |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|      |       |       |       |       |       |       |       |       |       |       |
| Inch | 0.31" | 0.39" | 0.51" | 0.79" | 0.98" | 1.18" | 1.57" | 1.77" | 1.97" | 2.36" |
| mm   | 8     | 10    | 13    | 20    | 25    | 30    | 40    | 45    | 50    | 60    |

### TYPICAL PROPERTIES

| Keramax | Chemical Components            |                  |          | Typical Specific density (g/cm <sup>3</sup> ) | Bulk density (tons/m <sup>3</sup> ) | Typical Hardness (Vickers, Hv10) | Sphericity (%) | Color |
|---------|--------------------------------|------------------|----------|---|-------------------------------------|----------------------------------|----------------|-------|
|         | Al <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub> | + others |   |                                     |                                  |                |       |
| B       | Al <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub> | + others | 3.7   | ~2.2                                | 1300                             | 99             | white |
| M       | Al <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub> | + others | 3.7   | ~2.2                                | 1300                             | 99             | white |

The information and data in this data sheet are accurate to the best of our knowledge. They are intended for general information only. Applications as suggested are described only to help readers make their own assessment. They are neither guarantees nor to be construed as express or implied warranties of suitability for these or other applications.

Process optimization products and services for high abrasion extracting industries



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