|  |  |  |  |
| --- | --- | --- | --- |
| Product Specification | Manufacturer | | CUMI |
|  | Abrasive Type | | Alumina |
| Bond Type | | Vitrified |
| Percentage composition | Bond | 15 |
| Abrasive | 48 |
| Grain size | | 46 |
| Bond Strength | | K |
| Wheel structure | | 5 |
| Material Properties | Density (kg/mm3) | | 3.68 |
|  | Hardness (kg/ mm2) | | 1175 |
| Elastic Modulus (GPa) | | 300 |
| Bulk Modulus (GPa) | | 124 |
| Shear Modulus (GPa) | | 165 |
| Compressive Strength (MPa) | | 2100 |
| Thermal conductivity (W/m oK) | | 18 |
| Specific Heat (J/kg oK) | | 880 |
| Poisson ratio | | 0.21 |
| Process Info | Mold Dry Temperature (oC) | | 90-100 |
|  | Firing Temperature (oC) | | 1250-1300 |
| Dimensional Description | Outer Diameter (mm) | | 180 |
|  | Inner Diameter (mm) | | 31.75 |
| Wheel width (mm) | | 13 |
| Cutting Edge density | | 6 |
| Chemical interaction and efficiency | Machining materials | | Ferrous materials |
| Safety Do’s and Don’ts | Maximum operating speed (rpm) | | 4140 |

Graph to be plotted

|  |  |  |  |
| --- | --- | --- | --- |
| Workpieces | Spindle drive current (A) | | |
|  | Set 1 | Set 2 | Set 3 |
| 1 | 1.0431 | 1.0326 | 0.9732 |
| 2 | 1.0577 | 1.0609 | 0.9203 |
| 3 | 1.059 | 1.1388 | 1.0721 |
| 4 | 1.2526 | 1.2503 | 1.1498 |
| 5 | 1.2058 | 1.2716 | 1.1431 |
| 6 | 1.2859 | 1.3604 | 1.2771 |
| 7 | 1.467 | 1.4789 | 1.3154 |
| 8 | 1.3623 | 1.502 | 1.3552 |
| 9 | 1.5046 | 1.541 | 1.392 |
| 10 |  |  | 1.4697 |

