## QUALITY MARKING OF GRINDING WHEELS



Abrasives Aluminum oxides (Al <sub>2</sub> O <sub>3</sub> ), silicon carbides (SiC), superabrasives (CBN/diamond)	<b>Grit size</b> Description of the abrasive grain size	Hardness Resistance of the grain to breaking out of the bond structure.	Structure Refers to the abrasive concentration and the dis- tribution of abrasive grain, bond, and pore space.		Bond Holds the grains in place within the grinding wheel structure.
Brown fused			Manufacturing process 1	Manufacturing process 2	
alumina AN	<b>very coarse</b> 8, 10, 12	<b>very soft</b> D, E, F, G	very dense 1 - 15	very dense 80 - 81	<b>V</b> vitrified
Sintered alumina SA-SZ	<b>coarse</b> 14, 16, 20, 24	soft H, I, J, K	<b>dense</b> 16 - 25	<b>dense</b> 82 - 84	<b>B</b> synthetic resin
Semi-friable alumina AH	<b>medium</b> 30, 36, 40, 46, 54, 60	<b>medium</b> L, M, N, O	<b>medium</b> 26 - 35	<b>medium</b> 85 - 88	<b>E</b> epoxy resin
White fused alumina AW	<b>fine</b> 70, 80, 90, 100, 120	<b>hard</b> P, Q, R, S	<b>open</b> 36 - 42	<b>open</b> 89 - 92	<b>M</b> magnesite
Pink fused alumina AR	<b>very fine</b> 150, 180, 240	<b>very hard</b> T, U, V, W	<b>very open</b> 43 - 49	<b>very open</b> 93 - 94	<b>R</b> rubber
Ruby fused alumina AX	<b>ultra fine</b> 280, 320, 360, 400, 500, 600, 800, 1000	<b>ultra hard</b> X, Y, Z	<b>porous</b> 50 - 60	<b>porous</b> 95 - 96	
Monocrystalline alumina AT			<b>very porous</b> 61 - 79	very porous 97 - 98	
<b>Zirconia alumina</b> ZF/ZK					

## **Example**



**Diamond** 1D-99D

**Black silicon** carbide

**Green silicon** 

carbide

**CBN** 1B-99B

Since grinding usually takes place near the end of the production process, the manufacturing costs are significantly influenced by the quality of the grinding tool.

High-quality precision tools from THELEICO reduce your production scrap, make your grinding process more efficient, and increase your product quality.















