

# AZ25 FOR BONDED ABRASIVES CODE : 1520

## Description

AZ25 code 1520 is produced by fusing zirconia and alumina at about 1950°C. This grain consists of a fine primary Corundum and Alumina-Zirconia eutectic crystalline structure, which provides extremely wear resistant and aggressive cutting properties.

This grain has proven to be very suitable for tough grinding applications, such as high pressure grinding for steel conditioning, foundry, and snagging applications.

## Physical Properties (Typical)

Crystal Size	17 microns	Melting Point	1950°C
Specific Gravity(g/cm <sup>3</sup> )	4.30	Loose Packed-Density (g/cm <sup>3</sup> )	2.00-2.40
Vickers Hardness	21 GPA for 50 gram load		

## Chemical Properties (Typical)

Al <sub>2</sub> O <sub>3</sub>	74.5%	ZrO <sub>2</sub>	25.0%
TiO <sub>2</sub>	0.08%	SiO <sub>2</sub>	0.15%
Fe <sub>2</sub> O <sub>3</sub>	0.12%	Na <sub>2</sub> O	0.05%
CaO	0.10%	MgO	< 0.01%

## Application

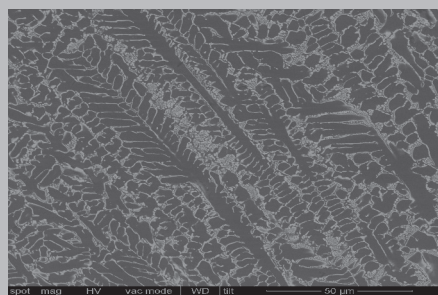
Code	Grain Shape	Treatment	Sizing Convention	Grit Size	Application
1520	Strong	Untreated	Modified ANSI	F4-F36	Bonded

## Packaging

25 KG / Paper bag  
1000 KG/ Super sack



Macrostructure of AZ-25 grains



Microstructure of AZ-25 grains (SEM)

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## Loose Pack Density (LPD) Limits

Grit Size	Lower Limits (g/cm <sup>3</sup> )	Upper Limits (g/cm <sup>3</sup> )	Grit Size	Lower Limits (g/cm <sup>3</sup> )	Upper Limits (g/cm <sup>3</sup> )
8T	2.126	2.297	16T	2.071	2.282
10T	2.222	2.400	20T	2.025	2.250
12T	2.182	2.363	24T	2.010	2.242
14T	2.121	2.302	30T	2.005	2.237

## Loose Pack Density (LPD) Limits Sizing Convention and Specifications\*

Grit Size	Oversize	Coarse Grain	1 <sup>st</sup> Nominal	2 <sup>nd</sup> Nominal	Fine Grain
	Test Sieve 1	Test Sieve 2	Test Sieve 3	Test Sieve 3&4	
4T	(+5/16")/0	(+3-1/2")/(0-20)	+4/40+	(+4+5)/70+	-6/(0-5)
6T	(+3-1/2")/0	+5/(15-30)	+6/35+	(+6+7)/55+	-8/(0-3)
8T	+4/0	+6/(8-23)	+7/30+	(+7+8)/65+	-10/(0-3)
10T	+5/0	+7/(2-17)	+8/20+	(+8+10)/60+	-12/(0-8)
12T	+6/0	+8/(1-16)	+10/20+	(+10+12)/60+	-14/(0-5)
14T	+8/0	+12/(20-40)	+14/35+	(+14+16)/60+	-18/(0-5)
16T	+10/0	+14/(5-25)	+16/30+	(+16+18)/60+	-20/(0-5)
20T	+12/0	+16/(0-20)	+18/25+	(+18+20)/60+	-25/(0-10)
24T	+16/0	+20/(0-25)	+25/45+	(+25+30)/65+	-35/(0-3)
20T	+18/0	+25/(0-25)	+30/45+	(+30+35)/65+	-40/(0-3)
36T	+20/0	+30/(0-25)	+35/45+	(+35+40)/65+	-45/(0-3)

\*Modified ANSI

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