



ZAPP

Tuff [tuhf] adjective

1. Strong and durable; not easily broken

Z-Tuff PM™ TOUGHNESS WITHOUT SACRIFICE

Ultra high-performance tool steel for maximum toughness under the most challenging conditions

21st century manufacturing is too advanced for 19th century tool steel. “Tough” grades like A2 and S7 lack the toughness, wear resistance and hardness for today’s applications. Z-Tuff PM improves all critical performance characteristics, leading to longer-running tools and lower maintenance cost. Z-Tuff PM continues Zapp’s 300 year tradition of innovation through *Engineered Solutions*.



Wear Resistance vs. A2



Toughness vs. A2



Coating Possibilities vs. A2

When toughness counts you can rely on Z-Tuff PM.

Contact Zapp today to discuss your unique application.

ZAPP

TOOLING ALLOYS
ISO 9001: 2015

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Z-Tuff PM™ STOCK SIZES

Z-12 Ultra PM is available in a wide range of round and flat sizes, available in cut-pieces or full bar lengths.

ROUND BARS

0.515"	3.062"	6.062"
0.765"	3.312"	6.562"
1.015"	3.562"	7.125"
1.265"	3.812"	8.125"
1.515"	4.062"	9.125"
1.781"	4.531"	10.125"
2.031"	5.062"	12.125"
2.531"	5.562"	16.125"

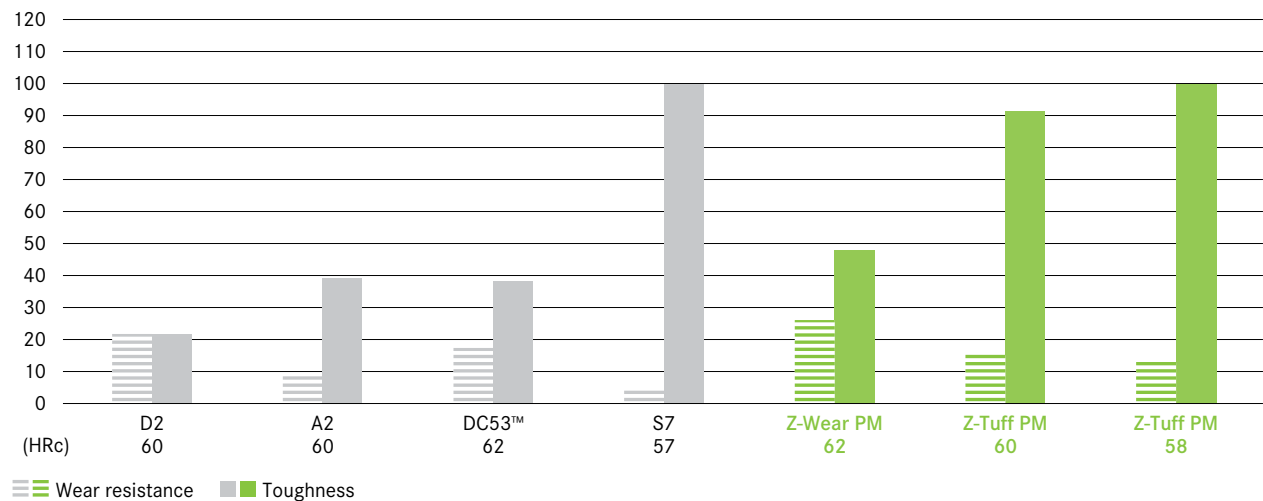
MACHINED PLATE

All flat sizes up to 12" thick are available.

Flats are available with saw-cut tolerances or *Z-Squared* to your tolerance specifications.

Please contact your Zapp representative to discuss having your steel Z-Squared quickly and cost effectively.

COMPARISON OF MATERIALS



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