GRANIT ABRASIVE

GRANIT ABRASIVES

PRODUCT CATALOGUE

Graniflex Cut&Grind Combi-Master 3in1 Discs

Graniflex Cutting-Master Cutting Discs

Graniflex Plussz Cutting Discs

Graniflex Plussz Grinding Discs

Vitrified Grinding Wheels and Segments

Resinoid Bonded Grinding Wheels and Segments

Coated Abrasives

GRANIT GRINDING WHEEL Ltd.

is the largest grinding wheel manufacturing company in Hungary with over 60 years of manufacturing experience. We produce under strict quality assurance management ensuring the consistent high quality of our products.

GRANIT GRINDING WHEEL Ltd. is a **privately owned, independent** manufacturing and marketing company. We are a leader in market innovations and attribute our success to our superior client support. This support is best demonstrated by our ability to deliver customized and cost effective solutions for our clients assorted grinding needs. Our main product lines are the Resinoid & Vitrified Bonded Grinding Wheels and Segments, the Glass Fibre Reinforced Cutting and Grinding Discs containing different versions of corundum and silicon carbide grains.

Granit's History of Excellence

The main features and advantages of the professional quality Granit products which make our grinding tools an excellent choice for you:

- We manufacture our products using only the highest quality raw materials under strict controll. Our production uses up to date technology combined with strict quality assurance.
- Our professional quality products ensure an optimal price-value ratio to our customers.
- Our broad range of products are immediately available from stock.
- The delivery time of the custom made products is short.
- We are offering flexibly customized products, based on our clients' special need as analyzed by our experts.
- Our goal is to provide the most cost effective solution for all of your grinding needs.

1981
Graniflex cutting & depressed centre grinding wheels were awarded the DSA qualification - indicating that the product met the strictest of European safety standards.

1996
Received ÖQS Quality Management System certification which met ISO 9001 standards.

2003, 2009
Received EN ISO 9001 Quality Management System certification which met ISO 9001:2000. Introduction of ISO 14001:2004 Environmental Management Systems.

2004
Granit and all of its manufactured products received the oSa certification which means they comply with the standards required by the Organization for the Safety of Abrasives.

Granit as the member of oSa:
- Monitors the entire production process.
- Constantly checks production according to EN standard.
- Is commited to ethical guidelines as well as maximum safety at work and environmental protection.

What is oSa, the Organization for the Safety of Abrasives?

Leading producers of high-grade abrasive products have come together in this international organization to document the high safety standards of their branded and quality products. oSa members are committed to sustaining quality assurance and ensuring the adherence to safety standards. As a result, the user knows that products with the oSa label reflect high-grade production and high safety standards.

GRANIFLEX Cutting & Grinding Discs

Graniflex cutting & grinding discs are high quality wheels which were developed for professional industrial usage and thus have a long working life. In order to ensure that our wheels are made to the highest quality and provide the most stable performance, all of our raw materials are sourced from high quality, regularly controlled suppliers who have a long history of delivering us quality goods. Our wheels are manufactured on modern equipment to maintain production quality. We have regular performance and safety testing to ensure that all of our products meet the highest safety and quality standards.

We continuously develop new products based on requests and feedback from our clients. We currently manufacture two categories of professional products all of which are produced with 2-4 glass fibre reinforcements to ensure safety:

•Standard industrial quality Graniflex Plussz product family for professional users and

•The premium category discs including the universal, high performance Graniflex Cutting-Master thin cutting discs and the Graniflex Combi-Master 3in1 discs for cutting, grinding and notching purposes.

Specification System

Pictograms describing application field

Steel

Steel and INOX

Stainless Steel (Inox)

Alloyed Steel

Stone

Rail Cutting

Pictograms indicating safety instructions

Read and observe the instructions of the user manual of the angle grinder!

Always use the necessary safety equipment to ensure personal protection!

Not permitted for side grinding!

Do not use on hand held grinders!

Do not use for wet grinding!

Diagonal stripe color:

red: max. **80 m/s**

green: max. **100 m/s**

The color of the frame signals the material for which the disc is recommended for:

Blue: **for steel**

Light blue: **for alloyed steel**

Purple: **for stainless steel**

Green: **for stones**

Wheel diameter (mm)	Max. Revolutions per Minute (1/min) 80 m/s	100 m/s
115	13.300	-
125	12.250	-
150	10.200	-
180	8.500	-
230	6.650	
300	5.100	6.400
355	-	5.500
400	-	4.800
500	-	3.850

Grain

1A	aluminium oxide
11A	mixed aluminium oxide
16A	mixed aluminium oxide
61A	mixed aluminium oxide
1C	black silicon carbide

Indication of product expiry on the bore of the disc. For example V 07/2014 (Valid until the end of July 2014)

Resinoid bonded, glass fibre reinforced cutting and snagging discs can be used for 3 years from the date of production!
Do not side grind with cutting discs!

To ensure that the hand held grinder is not blocked make sure to keep the cutting wheel straight in the cut!
Switch off the machine and allow the wheel to stop completely before placing it on the bench or on the floor!

GRANIFLEX CUT & GRIND
COMBI–MASTER 3 in 1 Cutting And Thin Grinding Discs

Cutting discs in practice are often used as grinding wheels. This is a violation of safety rules and causes constant danger. In accordance with the new safety standard there is now no more minimum limit to the grinding discs' thickness, which permits provision of thinner grinding disc to the users for solving multiple, complex tasks with one single high performance wheel.

The Combi-Master discs can be used in triple function: as cutting, notching and grinding wheel.

3 in 1
- Great for notching
- Full value grinding disc, for surface cleaning, deburring and trimming
- The cutting needs during grinding can be done with one single tool without time loss

The high safety level is achieved by building up strong composite material using unique impregnated glass fibre reinforcement system, special pressing method and curing technique. This is the first wheel on the world market holding the advantages of the above mentioned triple function. Due to this invention customers can purchase and use tools with very good applicability, performance and safety level for these three potential applications, working on both structural and stainless steel workpieces. There is no need to change the tool depending on the material or grinding task. Using these wheels the industry can increase its efficiency and also the safety level, giving safe working conditions.

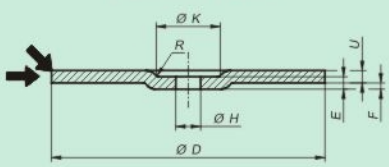
Almost eliminating downtime and maximizing productivity!

Did you know? The side load of these wheels are over the limits concerning grinding wheels, which are five-six times higher than the limits valid for cutting discs.

Max. grinding speed 80 m/s
Diameter:
115-180 mm
Should be used until the validity date marked on the bore!
Packaging unit:
10 pcs.

Art. No.	Dimensions DxTxH	Specification
40388	115 x 3,5 x 22.23	61A 46 S7 BF
40389	125 x 3,5 x 22.23	61A 46 S7 BF
40413	150 x 3,5 x 22.23	61A 46 S7 BF
40404	180 x 3,5 x 22.23	61A 46 S7 BF
new* 40497	115 x 2,5 x 22.23	61A 46 S7 BF
new* 40455	125 x 2,5 x 22.23	61A 46 S7 BF

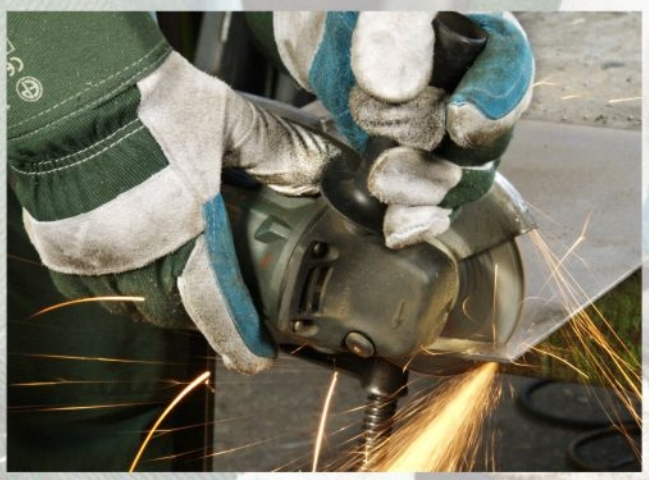
Shape type: 27



Benefits & Applications:
- The grinding discs available at the market are too thick for particular applications, like the notching work phase of arc welding, or grinding in places, which difficult to get at. This wheel is developed for these purposes.
- For stainless materials the wheel is Fe+Cl+S free.
- The compositon ensures work with ease.
- The disc is formulated for giving finer finish.

* Available for orders. Ask our special offer.

GRANIFLEX HIGH PERFORMANCE
CUTTING-MASTER Cutting Discs



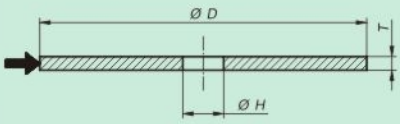
Extra thin premium quality product group for professional users!

Serving the most demanding cutting applications and for your benefit we developed premium cutting discs. The Cutting-Master extra thin, product family offers a real opportunity to the users, to take advantage of a high performance and extra long life tool. The professional industrial user benefits from the fast and cool cutting, small material waste, and burr-free cutting. The discs are Fe+S+Cl free, which allows the product to be used on stainless steel. It is ideal for cutting sheets, bars, pipes, shaped sections.

Owing to the dimension of the thin discs safety is the up-most important factor. The Cutting-Master discs comply with the strictest international standards proved by bursting, side-load and impact tests.

Art. No.	Dimension DxTxH	Specification
new* 40567	75 x 1 x 10	61A 60 T8 BF
new* 40440	100 x 1 x 16	61A 60 T8 BF
40120	115 x 1 x 22,23	61A 60 T8 BF
40121	115 x 1,6 x 22,23	61A 46 T8 BF
40122	125 x 1 x 22,23	61A 60 T8 BF
40119	125 x 1,6 x 22,23	61A 46 T8 BF
40140	150 x 1,6 x 22,23	61A 46 T8 BF
40139	180 x 1,6 x 22,23	61A 46 T8 BF
40222	230 x 1,9 x 22,23	61A 46 T8 BF

Shape type: 41



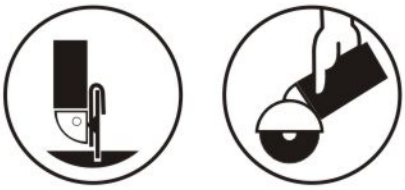
Max. grinding speed 80 m/s
Diameter: 75-230 mm
Should be used until the validity date marked on the bore!
Packaging unit: 25 pcs.

Benefits & Applications:

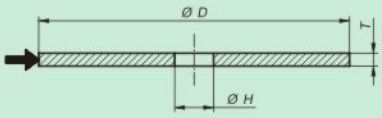
- Formulated for structural and stainless steel
- Thin wheels for fast and free cut
- Outstanding life
- Work with minimal pressure for best control
- The unique grain combination and small contact surface reduces the amount of material waste and the grinders' capacity need

* Available for orders. Ask our special offer.

GRANIFLEX PLUSSZ Flat Cutting Discs for Portable Machine



Shape type: 41



Max. cutting speed 80 m/s
Diameter: 75-230 mm
Should be used until the validity date marked on the bore!
Packaging unit: 25 pcs.

In addition to our standard products listed in this catalogue we can also make custom made products – there is a minimum order size.

Product Recommendation:

- **You can cut a certain diameter workpiece the most economically, if you select the largest diameter cutting wheel and the suitable angle grinder available!**
- **The weight of the angle grinder ensures enough load, work without forcing the wheel!**
- **Keep the cutting wheel straight in the cut in order to avoid side load pressure and the block of the machine!**
- **Do not side grind with cutting discs!**
- **For notching and light grinding use Combi-Master discs!**

Extra Thin Cut-off Discs for Structural Steel

Application: Sheets, small diameter bars, and shaped sections cutting

Characteristics: Easy, fast, exact work; Burr free finish and little material waste

	Art. No.	Dimension DxTxH	Specification
	40001	115 x 1 x 22.23	1A 60 S7 BF
	40002	115 x 1 x 22.23	1A 46 S7 BF
	40012	125 x 1 x 22.23	1A 60 S7 BF
	40013	125 x 1,6 x 22.23	1A 46 S7 BF
	40128	150 x 1,6 x 22.23	1A 46 S7 BF
	40194	180 x 1,6 x 22.23	1A 46 S7 BF
	40086	230 x 2 x 22.23	1A 36 S7 BF

Hard Cut-off Discs for Structural Steel

Application: Iron and structural steel cutting; Sheets, shaped sections, thin-walled pipes, solid materials, flat steel cutting

Characteristics: Long life discs, with good cutting efficiency and cutting capacity. Due to the geometry of the wheel its side load ability is high, which makes it suitable for heavy work under unfavorable circumstances.

	Art. No.	Dimension DxTxH	Specification
	40196	115 x 2 x 22.23	1A 36 S7 BF
	40005	115 x 2,5 x 22.23	1A 36 S7 BF
	40008	115 x 3,2 x 22.23	1A 36 S7 BF
	40014	125 x 2 x 22.23	1A 36 S7 BF
	40016	125 x 2,5 x 22.23	1A 36 S7 BF
	40019	125 x 3,2 x 22.23	1A 36 S7 BF
	40107	150 x 2 x 22.23	1A 36 S7 BF
	40021	150 x 2,5 x 22.23	1A 36 S7 BF
*	40022	150 x 3,2 x 22.23	1A 36 S7 BF
	40024	180 x 2 x 22.23	1A 36 S7 BF
	40026	180 x 2,5 x 22.23	1A 36 S7 BF
	40028	180 x 3,2 x 22.23	1A 36 S7 BF
	40035	230 x 2,5 x 22.23	1A 36 S7 BF
	40039	230 x 3,2 x 22.23	1A 36 S7 BF

Medium Hard Cut-off Discs for Stainless Steel

Application: Stainless steel (and non-ferrous metals) cutting

Characteristics: We recommend these wheels for stainless steel (INOX) cutting. In order to achieve the optimal performance it contains more expensive, special aluminium oxide grains in softer bond. The wheels are Fe+S+Cl free to eliminate any corrosion concerns.

	Art. No.	Dimension DxTxH	Specification
*	40007	115 x 2,5 x 22.23	61A 30 S7 BF
*	40011	115 x 3,2 x 22.23	61A 30 S7 BF
*	40017	125 x 2,5 x 22.23	61A 30 S7 BF
	40068	125 x 3,2 x 22.23	61A 30 S7 BF
	40124	150 x 2,5 x 22.23	61A 30 S7 BF
*	40070	180 x 2,5 x 22.23	61A 30 S7 BF
	40033	180 x 3,2 x 22.23	61A 30 S7 BF
	40037	230 x 2,5 x 22.23	61A 30 S7 BF
	40045	230 x 3,2 x 22.23	61A 30 S7 BF

Medium Hard Cut-off Discs for Alloyed Steel

Application: Alloyed steel cutting

Characteristics: The wheels behave softer than the 1A30S7BF disc recommended for structural steel, and facilitate faster work. We are able to achieve a larger removal rate by using a cleaner grain with greater self-sharpening ability.

	Art. No.	Dimension DxTxH	Specification
*	40003	115 x 2,5 x 22,23	16A 30 S7 BF
*	40015	125 x 2,5 x 22,23	16A 30 S7 BF
*	40025	180 x 2,5 x 22,23	16A 30 S7 BF
*	40034	230 x 2,5 x 22,23	16A 30 S7 BF

Cut-off Discs for Stone

Application: General cutting wheels for stone, concrete, bricks, tiles and hard cast iron (GG)

Characteristics: The hard, but friable silicon carbide grains ensure that the disc is both long lasting and self-sharpening.

	Art. No.	Dimension DxTxH	Specification
	40010	115 x 3,2 x 22.23	1C 36 R8 BF
	40020	125 x 3,2 x 22.23	1C 36 R8 BF
*	40023	150 x 3,2 x 22.23	1C 36 R8 BF
	40031	180 x 3,2 x 22.23	1C 36 R8 BF
	40042	230 x 3,2 x 22.23	1C 36 R8 BF

* Available for orders. Ask our special offer.

Extra Thin Cut-off Discs for stainless steel

Art. No.	Dimensions DxTxH	Specification
40435	115 x 1 x 22,23	11A 60 S7 BF
40436	125 x 1 x 22,23	11A 60 S7 BF
new 40696	230 x 1,9 x 22,23	11A 46 S7 BF

Benefits & Applications:

- Faster, freer and cooler cut both on stainless and structurer steel
- Thanks to the new curing technique the disc behaves softer than the 61A composition to ensure superior cutting edge
- Small contact surface, less material waste
- Cuts at low cost

GRANIFLEX PLUSSZ Large Diameter, Flat Cutting Discs

Art. No.	Dimension DxTxH	Specification	Max. Speed	Application
40052	300x3,2x20	1A 30 S7 BF	80 m/s	steel
* 40220	300x3,2x25,4	1A 30 S7 BF	100 m/s	steel
40051	300x3,2x32	1A 30 S7 BF	100 m/s	steel
40221	355x3,5x25,4	1A 24 S7 BF	100 m/s	steel
* 40431	400x4,0x25,4	1A 24 S7 BF	100 m/s	steel
40062	400x4,0x40	1A 24 S7 BF	100 m/s	steel
40065	500x5,0x40	1A 24 S7 BF	100 m/s	steel
* 40101	300x3,2x32	61A 30 S7 BF	100 m/s	inox
40056	300x3,2x20	1C 30 R8 BF	80 m/s	stone
40055	300x3,2x32	1C 30 R8 BF	100 m/s	stone
* 40064	400x4,0x40	1C 24 R8 BF	100 m/s	stone
* 40066	500x5,0x40	1C 24 R8 BF	100 m/s	stone
* 40082	300x3,5x22,23	16A 30 S7 BF	100 m/s	rail cutting
* 40291	300x3,5x32	16A 30 S7 BF	100 m/s	rail cutting

* Available for orders. Ask our special offer.

for mobile machines for stationary machines

For given application tasks and materials we developed different larger diameter cutting discs both for stationary and mobile machines. Depending on the material we offer medium hard and hard wheels. In consideration of the selection of the wheel diameter and thickness the user can adapt the wheel to the geometry of the workpieces. Selecting the appropriate wheel gives large cutting speed and constant grinding performance. By optimizing the wheels to the task the cutting time becomes shorter, the work more effective and economical.

Benefits & Applications:

- We recommend our 1A and 16A compositions for larger cross section materials, shaped sections (rolled and cold curved „U", „I", „L", „T" profiles, angle sections, closed profiles), bars, pipes, flat steels, sheets cutting.
- The 1C discs can be use on natural and artificial stones (fire brick, sandstone, tile, brick, concrete).
- For cutting dense and larger diameter material use our rail cutting (16A) disc, which composition is softer ensuring easier cut.

In addition to our standard large diameter discs we can provide custom made products as well. Ask our special offer!

GRANIFLEX PLUSSZ Depressed Centre Grinding Discs

Hard Grinding Discs for Structural Steel

Application: Steel surface cleaning for structural steel, deburring, angle and corner dressing
Characteristics: Hard, long lasting grinding wheel, offers a good performance/value ratio.

	Art. No.	Dimension DxTxH	Specification
	45003	115 x 4 x 22,23	1A 30 S7 BF
	45006	115 x 6 x 22,23	1A 30 S7 BF
	45011	125 x 4 x 22,23	1A 30 S7 BF
	45015	125 x 6 x 22,23	1A 30 S7 BF
	45021	150 x 6 x 22,23	1A 30 S7 BF
*	45076	150 x 8 x 22,23	1A 30 S7 BF
	45023	180 x 4 x 22,23	1A 30 S7 BF
	45027	180 x 6 x 22,23	1A 30 S7 BF
	45035	180 x 8 x 22,23	1A 30 S7 BF
*	45037	180 x 10 x 22,23	1A 30 S7 BF
	45040	230 x 4 x 22,23	1A 30 S7 BF
	45044	230 x 6 x 22,23	1A 30 S7 BF
*	45047	230 x 8 x 22,23	1A 30 S7 BF

* Available for orders. Ask our special offer.

Medium Hard, High Removal Rate Grinding Discs for Stainless Steel

Application: Stainless steel surface cleaning

Characteristics: We recommend these wheels for stainless steel (INOX) grinding. In order to achieve the optimal performance it contains more expensive, special aluminium oxide grains in softer bond. The wheels are Fe + S + Cl free to eliminate any corrosion concerns.

Art. No.	Dimension DxTxH	Specification
45010	115 x 6 x 22,23	61A 30 R8 BF
45057	125 x 4 x 22,23	61A 30 R8 BF
45056	125 x 6 x 22,23	61A 30 R8 BF
45075	150 x 6 x 22,23	61A 30 R8 BF
45053	180 x 6 x 22,23	61A 30 R8 BF
45054	230 x 6 x 22,23	61A 30 R8 BF

Grinding Discs for Stone

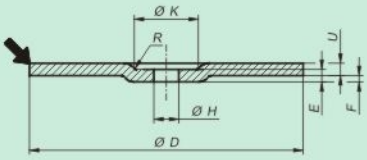
Application: General grinding discs for stone, concrete, tiles, hard cast iron (GG)

Characteristics: The hard, but friable silicon carbide grains ensure that the disc is both long lasting and self-sharpening.

	Art. No.	Dimension DxTxH	Specification
	45008	115 x 6 x 22,23	1C 30 R8 BF
	45016	125 x 6 x 22,23	1C 30 R8 BF
*	45022	150 x 6 x 22,23	1C 30 R8 BF
	45030	180 x 6 x 22,23	1C 30 R8 BF
	45045	230 x 6 x 22,23	1C 30 R8 BF

* Available for orders. Ask our special offer.

Shape type: 27



Max. grinding speed 80 m/s
Diameter: 75-230 mm
Should be used until the validity date marked on the bore!
Packaging unit: 10 pcs.

In addition to our standard products listed in this catalogue we can also make custom made products – there is a minimum order size.

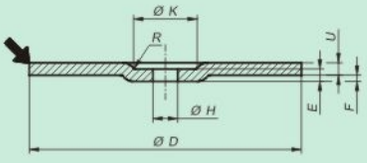
Product Recommendation:
Keep the machine at the angle of 20-30° when you grind!

Medium Hard, High Removal Rate Grinding Discs for Alloyed Steel

The 16A composition discs are constructed to behave softer than our 1A discs to deliver faster and easier work. The discs are proven to work with higher efficiency and fast material removal according to the field test and our comparison tests.
The dynamic, free and easy material removal comes together with a good wheel life compared to other soft grinding wheels. The discs are formulated to give optimal life – removal rate combination.
The 16A composition is formulated to work with ease and with increased efficiency. These are characterized by such technological parameters as self-sharpening abrasive grains, job matched cleaner fillers, special resins.

Lower your grinding cost with our choice of grinding disc!

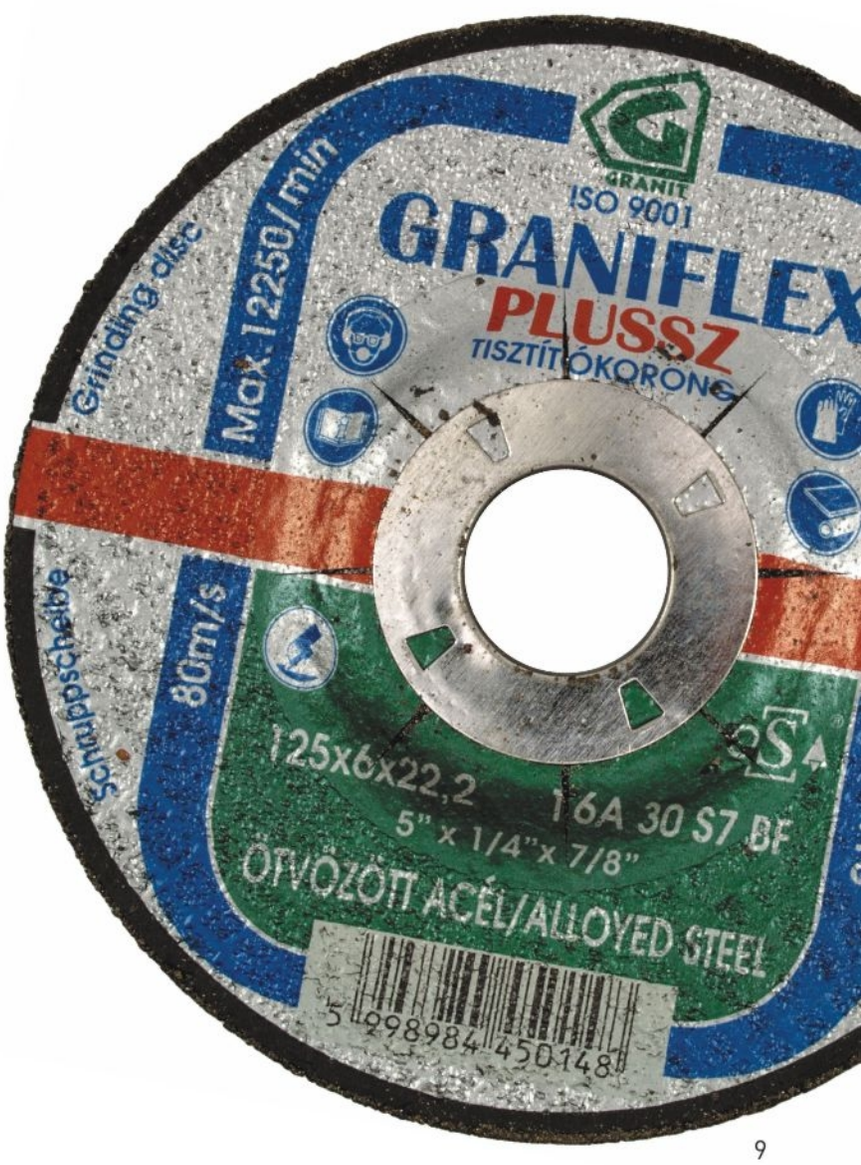
Shape type: 27



Max. grinding speed 80 m/s
Diameter: 75-230 mm
Should be used until the validity date marked on the bore!
Packaging unit: 10 pcs.

Art. No.	Dimension DxTxH	Specification
45005	115 x 6 x 22,23	16A 30 S7 BF
45128	125 x 6 x 22,23	16A 30 S7 BF
45069	150 x 6 x 22,23	16A 30 S7 BF
45025	180 x 6 x 22,23	16A 30 S7 BF
45042	230 x 6 x 22,23	16A 30 S7 BF

Benefits & Applications:
For general purpose grinding both on low and high alloyed steels. The user especially benefits from using the 16A wheels on hard weld seams, when the hard grinding wheels are not the optimal choice. The hard wheels can be loaded, burnt in, and demands more power from the angle grinder and from the operator compare to the 16A discs. For deburring, bringing down weld seams, preparing edges, working in corners.



Specification System of Bonded Abrasive Products

Type of shape	Dimen-sions	Abrasive type	Grit size, combination of different grits	Hardness grade	Structure	Bond nature	Type of bond	Maximum operating speed
1	175x20x32	67A	462	K	8	V	31	40 m/s

Type of shape: e. g. 1, 5, ... The type of shapes listed in this section all appear later in this catalogue. The relevant type of shape drawings are located next to the listed product in a particular block.
Size: main geometric parameters e.g. for shape type 1: diameter x thickness x bore (mm)

Abrasive grain Abbreviation	Full name	Characteristics	Typical application
1 A	Regular aluminium oxide	hard, tough grain (brown, grey)	For grinding plain and low alloyed steel, cast steel, grey and chilled cast iron.
2 A	Microcrystalline aluminium oxide	white, pale	For grinding high-speed steel, medium and high alloyed tool steel, chromium hardened surfaces, heat and corrosion resistant steel, general tool grinding.
3 A Z	Alumina Zirconia	grey (on coated abrasive it is usually blue)	For rough grinding of cast iron, grinding structural, tool steel and stainless steel.
6 A	White aluminium oxide	hard, brittle (white)	For grinding unalloyed and alloyed, hardened and unhardened structural and tool steel, heat and corrosion resistant steel, rubber, glass.
7 A	Pink aluminium oxide	hard, tougher and less brittle than 6A	For grinding middle and highly alloyed, hardened and unhardened structural and tool steel, heat and corrosion resistant steel.
9 A	Monocrystalline aluminium oxide	hard, tough grain	For grinding high speed steel, highly alloyed steel, hardened steel, chromium hardened surfaces, heat and corrosion resistant steel.
16 A	Mixed aluminium oxide	1A + 6A	For grinding plain and low alloyed steel, hardened and unhardened structural and tool steels.
61 A 11 A	Mixed aluminium oxide	special corundum	For stainless steel.
67 A	Mixed aluminium oxide	6A + 7A	Application are the same as for 7A.
1 C	Black silicon carbide	hard, rigid, brittle	For grinding hard metal, cast iron, non-ferrous metals, aluminium, natural and artificial stones, ceramics, glasses.
2 C	Green silicon carbide	hard, rigid, brittle	For grinding hard metal, technical ceramics, glass.

Grit size

16, 20, 22, 24	30, 36, 40, 46, 54, 60	70, 80, 90, 100, 120, 150
coarse	medium	fine

The finer the grains the larger the grit size number. The grit size can be supplemented with additional number to indicate grit combinations. We recommend using a finer grain to obtain smoother surface.

Hardness grade

E, F, G	H, I, J, K	L, M, N, O	P, Q, R, S
very soft	soft	medium	hard

The hardness grade of abrasive tools characterizes how strongly both the grain and the bond resists the forces causing the breakage out of the grain from the tools emerging during the grinding process. Harder materials are normally ground with softer hardness grade tools.

Structure

3, 4	5, 6, 7, 8	9, 10	11, 12, 13
closed	medium	open	very open

The structure of abrasive tools depends on the volumetric ratio of abrasive grain, bond and pores. The pores create room for the chips and can help the removal of the chips from the working area, can enhance the cooling and the flushing of the tool and the work piece. We normally recommend open structure tools for soft materials that are difficult to grind.

Nature of bond

V	B	BF
vitrified bonded	resinoid bonded	glass fiber reinforced resinoid bonded

The vitrified bonded wheels are resistant to chemical effects and can be stored for an unlimited period of time. The resinoid bonded wheels are more flexible, and better for dynamic, forceful usage. Glass fibre reinforcement can further increase the resistance of the wheels to dynamic forces; an important factor if heavy usage is involved. The resinoid bonded wheels should be used within 3 year from the production date!

Color code definitions
(the diagonal color stripe on the wheel)

Color	Maximum operating speed
Blue	50 m/s
Yellow	63 m/s
Red	80 m/s
Green	100 m/s

Type of bond

It gives the Granit Grinding Wheel proprietory identification of the bond type. Figure "8" refers to the red color of the bonding. For other bond types, the color of the tool is similar to the color of the abrasive grain.

General Recommendation for Grinding Tool Selection

Material type to be ground		Surface grinding: horizontal spindle machine – straight and recessed grinding wheel	Surface grinding: vertical spindle machine – cup wheel and cylinder wheel	Surface grinding: vertical spindle machine – segment	External cylindrical grinding: between centres – standard	External cylindrical grinding: between centres – crankshaft and camshaft	External cylindrical grinding: centerless – through feed and infeed grinding	Off hand grinding: on bench grinders – fettling, deburring, form grinding	Internal grinding – grinding wheel diameter: 80÷150 mm
Plain and low alloyed construction and tool steel	unhardened	16A 36-54 J-K8 V 6A 46-60 J8 V	16A 36-54 J-K 8 V 6A 46-60 J 8 V	6A 30-54 J-K 8 V	16A 46-60 M-N 8 V		16A 54-60 M-N 8 V 6A 54-60 M-N 8 V	1A-6A 24-36 P-Q 3-5 V 1A 54 N 8 V 6A 60 M 8 V	6A-16A 46 M 8 V 7A 46 K 8 V
	hardened	6A 36-60 H-J 8 V	6A 36-60 H-J 8 V	6A 30-54 H-J 8-10 V	6A 46-60 K-M 8 V 6A 80-120 J-K 8 V		6A 60-80 K-M 8 V	6A 36 P 5 V 6A 46-60 M 8 V	6A-7A 60 K-L 8 V
Medium and high alloyed tool steel, HSS	unhardened	67A36-60 J-K 8 V 9A 46-80 K 8-10 V	67A36-60 J-K 8 V	67A 36-54 H 8 V	6A 46-54 L-M 8 V		16A 54-60 M-N 8 V 6A 54-60 M 8 V	6A 36 P 5 V 6A 46-60 M-N 8 V	6A 46-60 K 8 V
	hardened	6A36-60 H-J 8 V 9A 46-80 H 8-10 V	6A36-60 H-J 8 V	6A 36-54 H 8 V	6A 46-60 J-K 8 V 9A 46-80 H-J 8-10 V		6A 60-80 K-L 8 V	6A 36-60 L-N 8 V	6A 54-60 J8 V 6A-7A-9A 46 H 8-10 V
Plain and low alloyed forged steel	unhardened					6A-16A 46 N 5 V			
	hardened					16A 60 K8 V 6A 60 M 8 V			
Nitrided steel		1C 60 J 8 V	1C 60 J 8 V		1C 60 J 8 V 2C 120 J V				6A 54 J 8 V 1C 60 J-K 8 V
Heat resistant and stainless steel	unhardened	67A 36-54 J-K 8 V	67A 36-54 J-K 8 V	67A 36-46 H 8 V	67A 46-60 K-L 8 V 2C 60-80 J-K 8 V		67A 60 L-M 8 V 1C 60 L-M 5 V	6A 36-54 M-N 8 V 1C 36-46 M 5-8 V 1C 60 K 8 V	
	hardened	67A 54 H 8 V	67A 54 H 8 V	67A 46-54 H 8 V	67A 46-80 J-K 8 V 2C 100 J 8 V		6A 60 K-L 8 V 96A 60 J-K 8 V 1C 60 L 5 V		
Chromium hardened surfaces		67A 46-54 H-J 8 V 6A 120 H 8 V	67A 46-54 H-J 8 V 6A 120 H 8V	67A 54 H 8 V 6A 120 H 8 V	67A 54-100 J-K 8 V 2C 100 J 8 V				6A 80 I-K 8 V
Tough, wear resistant layed surfaces	HRC: 51-63	67A 46-60 J-K8-V	67A 46-60 H-I 8 V	67A 46-60 H-I 8 V	6A 46-60 K-M 8 V 2C 46-54J- L 8 V			6A 36 P 5V 6A 46-60 M 8V	6A80 J-K 8 V
	HRC→63	2C 46-60 H 8 V 96A 60 J 8 V	1C 60 G-H 8 V 96A 60-80 G-H 8 V	1C 60 G-H 8 V 96A 60 G 8 V	96A 60-80 J-K 8 V 2C 46-60 I-J 8 V			1C 36-46 M 8 V 1C 60 K 8 V	2C 60-80 J-K 8 V
Hard metal		2C 46-80 J-K 8 V	2C 46-60 H-J 8 V	2C 46-60 G-H 8V	1C 46 K 8 V 2C 60-80 J 8V		2C 60 J 8V	1C 36-46 M 8 V 1C 60 K 8 V	2C 60-80 J-K 8 V
Cast			16A 36 J 8 V 6A 54-60 I-J 8 V	16A 36 H 8 V 6A 30-60 G-H 8 V	16A 36 P 5 V 16A 54 M 8 V	16A 46 N 5 V 6A 60 M 5 V 9A 60 Q5 V	16A 46-54 M-N 8 V 6A 60 M 8 V	16A 24 R 3 V 16A 36 P 5 V 16A 54 N 8 V	6A 46 L 8 V
Gray and hard cast iron		6A 36 K 8 V 1C 36-54 J-K 8 V	6A 36 H 8 V 1C 36-54 I-J 8V	6A 30-60 G-H 8 V 1C 36-54 I 8 V	16A 36 P 5V 16A 54 M 8 V 1C 46-54 K-M 8 V		16A 46-54 M-N 8 V 6A 60 M 8 V 1C 46-54 L-M 8 V	16A 24-36 P-R 3-5 V 16A 46-60 N 8 V 1C 24-36 P-R 5 V 1C 46-60 M 8 V	
Light and coloured metals		1C 46-60 J-K 8 V	1C 46-54 I- 8 V	1C 36-54 H-I 8 V	1C 46-60 J-K 8 V		1C 46-60 K-L 8 V	1C 36-54 K-M 8 V	1C 36 J 8 V
Hard bronze		1C 36-46 J-K 8 V	1C 46 J 8 V	1C 36-46 J 8 V	6A 60 J 8 V 96A 60 J 8 V		6A 60 L 8 V		
Plastic, rubber, hard rubber		6A 46 H 10 V 1C 46-54 I-J 8 V	6A 46 H 10 V 1C 46-54 I-J 8 V	6A 36-46 H 10 V 1C 46 I 8 V	6A 46-60 J-K 8 V 1C 46-60 J-K 8 V		1C 46-60 K 8 V	1C 36-54 K-M 8 V	1C 36 I 8 V
Technical ceramics (green state)		1C 46-54 J 8 V 2C 120 I 8 V	1C 46-54 J 8V 2C 120 I 8 V	1C 36-54 J 8 V 2C 120 I 8 V	1C 46-60 K-L 8 V 2C 120 J 8 V		1C 60 K 8 V 2C 100 J 8 V	1C 24 P 5 V 1C 36-46 M 8 V 1C 60 K 8 V	

Tool grinding

Material type to be ground	Manual grinding: straight grinding wheel	Manual grinding: straight and taper cup wheel	Mechanical tool grinding: straight grinding wheel	Mechanical tool grinding: straight and taper cup wheel	Mechanical tool grinding: dish wheel
Unhardened tool steel	1A 36 P 5 V 6A 46-60 M-N 8 V				
Hardened tool steel and high-speed steel (SS. HSS)	6A 80 K 8 V 6A 46 M 8 V	6A 46 K 8 V	6A 46-60 K 8 V	6A 46-80 H 8 V	6A 46 H 8 V
Hard metal	6A 60-80 K 8 V 6A 80-100 J-K 8 V	6A 80 J 8 V	6A 60-120 J 8 V 9A 80 K 10 V	6A 60 -100 J 8 V	6A 60 J-K 8 V 6A 100-120 I-J 8 V

The data in the above recommendation table is only for general information, specifies only the most general solution, and can not be considered as specific technological advice. It is advisable to use first the softer grinding wheel version, in this case we do not risk the overheating of the workpiece, but the wear on the grinding wheel may be faster than the optimal rate. For grinding soft materials the use of rougher grain size and harder bonded grinding wheel is advisable, whereas for hard materials the finer grain size and softer bonded grinding wheel is recommended. Better grinding performance might be achievable for softer grinding wheels by increasing the peripheral speed of the wheel up to the maximum speed allowed by the manufacturer. For any specific grinding task, the specification of the grinding tools should be revised and might be modified compared to the above recommendation after exact assesment of the actual grinding technology the workpiece, the type of grinding machine etc. Please do not hesitate to consult our experts, who will be ready to help you to find the most suitable solution for your grinding tasks.

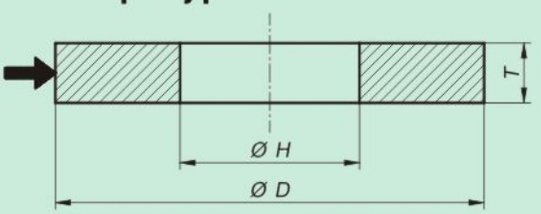
Saw sharpening

Material type to be ground		thickness of the wheels 2-5mm	thickness of the wheels 6-13mm
Low alloyed and unhardened tool steel	Wood work, belt and circular saws	6A 100 N 5 V	6A 90 P 5 V
		6A 90 P 5 V	6A 80 N 8 V
		6A 80 N 5 V	6A 60 M 8 V
High alloyed tool steel	gang saws		6A/7A 60 N 8 V
High-speed steel (HSS, SS)	Circular saws for metal working	6A 80 N 5 V	6A 60 M 8 V
			6A/7A 60 N 8 V
Stellite	Circular saws	6A 100 N 5 V	6A 80 N 5 V

Straight, Vitrified Bonded Wheels Shape type: 1

Maximum operating speed for manually guided grinding is 35 m/s, for mechanically guided grinding is 40 m/s. Wheels with faster maximum operating speeds may be custom ordered.

Shape type: 1



	Art. No.	Dimensions DxTxH	Specification
	10029	100x20x20	6A 60 M 8 V 38
	10096	125x16x12,7	1C 60 K 5 V 36
	10097	125x16x12,7	6A 60 M 8 V 38
	10107	125x20x32	1C 60 M 5 V 36
	10108	125x20x32/25/20	6A 60 M 8 V 38
	10280	150x20x20	1C 60 K 5 V 36
	10281	150x20x20	1C 60 M 5 V 36
	10290	150x20x20	6A 60 M 8 V 38
	10295	150x20x32	1C 60 K 5 V 36
	10296	150x20x32	1C 60 M 5 V 36
	10297	150x20x32	6A 60 M 8 V 38
	10492	175x20x20	1C 60 K 5 V 36
	10493	175x20x20	1C 60 M 5 V 36
	10511	175x20x20	6A 46 M 8 V 38
	10515	175x20x20	6A 60 M 8 V 38
	10528	175x20x32	1C 60 M 5 V 36
	10529	175x20x32	2C 60 K 5 V 36
	10531	175x20x32	6A 46 M 8 V 38
	10530	175x20x32	6A 60 K 8 V 38
	10545	175x20x32	6A 60 M 8 V 31
	10532	175x20x32	6A 60 M 8 V 38
	10553	175x25x32/25/20	1C 60 M 5 V 36
	10560	175x25x32/25/20	6A 60 M 8 V 38
	10677	200x20x20	1C 60 M 5 V 36
	10685	200x20x20	6A 60 M 8 V 38
	10695	200x20x32	1C 60 K 5 V 36
	10696	200x20x32	1C 60 M 5 V 36
	10709	200x20x32	6A 60 M 8 V 38
	10727	200x20x50,8	6A 60 M 8 V 38
new	10737	200x25x32	1C 60 M 5 V 36
new	10744	200x25x32	6A 60 M8 V 38
	10751	200x32x32	1C 60 M 5 V 36
	10758	200x32x32	6A 60 M 8 V 38
	10883	250x20x32/25/20	1C 60 M 5 V 36
	10884	250x20x32/25/20	6A 60 M 8 V 38
	10908	250x20x76,2	1C 60 K 5 V 36
new	13749	250x20x76,2	6A 46 J8 V 31
	10920	250x20x76,2	6A 60 M 8 V 38
	10929	250x25x32/25/20	1C 60 K 5 V 36
	10933	250x25x32/25/20	6A 60 M 8 V 38
	10945	250x25x76,2	1C 60 K 5 V 36
	10966	250x25x76,2	6A 46 K 8 V 38
	10965	250x25x76,2	6A 60 M 8 V 38
	13398	250x25x76,2	9A 46 K 10 V 31
new	10983	250x32x32	1C 60 M5 V 36
new	10987	250x32x32	6A 60 M8 V 38
	10995	250x32x76,2	1C 60 K 5 V 36
	11011	250x32x76,2	6A 60 K 8 V 38
	11009	250x32x76,2	6A 46 K 8 V 38
	11010	250x32x76,2	6A 60 M 8 V 38
	11122	300x32x32	1C 60 K 5 V 36
	11123	300x32x32	1C 60 M 5 V 36
	11133	300x32x32	6A 46 M 8 V 38
	11134	300x32x32	6A 60 M 8 V 38
	11143	300x32x127	1C 60 K 5 V 36
	11144	300x32x127	1C 60 M 5 V 36
	11165	300x32x127	6A 60 M 8 V 38
	11178	300x40x40	1C 60 K 5 V 36
	11182	300x40x40	6A 60 M 8 V 38
	11192	300x40x76,2	1C 60 M 5 V 36

Applications:
- Peripheral grinding
- Surface grinding
- General workshop usage: snagging, burr cleaning, shaping

	Art. No.	Dimensions DxTxH	Specification
	11199	300x40x76,2	6A 60 M 8 V 38
	11207	300x40x127	1C 60 K 5 V 36
	11213	300x40x127	6A 60 M 8 V 38
	11344	350x32x32	1C 60 M 5 V 36
	11349	350x32x32	6A 60 M 8 V 38
	11360	350x32x127	1C 60 M 5 V 36
	11366	350x32x127	6A 60 M 8 V 38
	11380	350x40x40	1C 60 K 5 V 36
	11381	350x40x40	1C 60 M 5 V 36
	11395	350x40x40	6A 46 M 8 V 38
	11396	350x40x40	6A 60 M 8 V 38
	11403	350x40x50,8	6A 60 M 8 V 38
	11411	350x40x127	1C 36 J 5 V 34
	11424	350x40x127	1C 46 M 5 V 36
	11426	350x40x127	1C 60 K 5 V 36
	11429	350x40x127	1C 60 M 5 V 36
new	11442	350x40x127	2C 60 K5 V 36
	11449	350x40x127	6A 36 M 8 V 31
	11480	350x40x127	6A 46 K 8 V 38
	11485	350x40x127	6A 46 M 8 V 38
	11483	350x40x127	6A 60 K 8 V 38
	11469	350x40x127	6A 60 M 8 V 31
	11484	350x40x127	6A 60 M 8 V 38
new	11495	350x40x127	7A 60 M 8 V 31
	11505	350x50x50,8	1C 60 M 5 V 36
	11508	350x50x50,8	6A 60 M 8 V 38
	11527	350x50x127	1C 60 M 5 V 36
	11558	350x50x127	6A 46 M 8 V 38
	11557	350x50x127	6A 60 M 8 V 38
	11590	350x63x127	6A 60 M 8 V 38
	11680	400x40x40	1C 60 M 5 V 36
	11682	400x40x40	6A 60 M 8 V 38
	11694	400x40x127	1C 60 K 5 V 36
	11718	400x40x127	6A 60 M 8 V 38
	11735	400x50x50,8	1C 60 K 5 V 36
	11742	400x50x50,8	6A 60 M 8 V 38
	11754	400x50x127	1C 60 M 8 V 36
	11774	400x50x127	6A 60 M 8 V 38
	11801	400x63x127	1C 60 M 5 V 36
	11815	400x63x127	6A 60 M 8 V 38
	11887	450x63x203,2	6A 60 M 8 V 38
	11943	500x50x50,8	1C 60 M 5 V 36
	11949	500x50x50,8	6A 60 M 8 V 38
	11954	500x50x127	1C 60 M 5 V 36
	11957	500x50x127	6A 46 M 8 V 38
	11958	500x50x127	6A 60 M 8 V 38
	11964	500x50x203,2	6A 60 M 8 V 38
	11979	500x63x127	6A 60 M 8 V 38
	11990	500x63x203,2	6A 60 M 8 V 38
	12022	500x80x203,2	6A 60 M 8 V 38
	12049	500x100x304,8	6A 46 K 8 V 31
	12071	500x150x304,8	6A 60 M 8 V 31

All of our grinding wheels listed in this catalogue can be ordered in recessed or profiled versions at an additional charge. Delivery time for shaping a straight wheel is 2 weeks from receipt of your order.

Maximum diameter: 900mm
Maximum thickness in one piece: 250mm
Thicker wheel can be made in set.

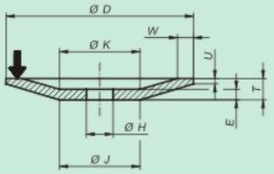
Product Recommendation:

For general tool steels we recommend using 6A (white or red colored bonding) grain.
For hard metals we recommend using 1C (grey) or 2C (green) silicon carbide grain.

Vitrified Grinding Wheels with Special Shape for Tool Sharpening

These products are recommended for tool sharpening with 40 m/s maximum operating speed for mechanically guided grinding!

Shape type: 12 32 m/s



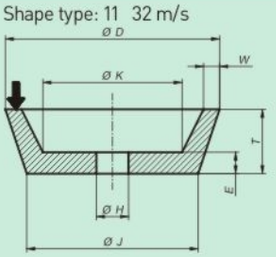
Product Recommendation:

For general tool steels we recommend using 6A (white or red colored bonding) grain.
For hard metals we recommend using 1C (grey) silicon carbide grain.

Dish Wheel Shape type: 12

Art. No.	Dimensions DxTxH	Additional dimensions	Specification
13466	125x13x20	U3,2 J61 E7 W6	6A 60 K8 V 31
10268	150x16x20	U3,2 J66 E9 W8	6A 60 K 8 V 31
10466	175x18x20	U3,2 J60 E11 W8	1C 60 K 5 V 36
10470	175x18x20	U3, 2J60 E11 W8	6A 60 K 8 V 31
10715	200x20x32	U3,2 J90 E12 W10	6A 60 K 8 V 31

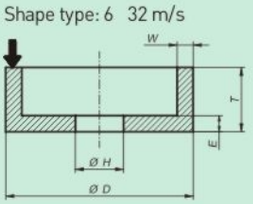
Shape type: 11 32 m/s



Taper Cup Wheel Shape type: 11

Art. No.	Dimensions DxTxH	Additional dimensions	Specification
10040	100x40x20	W8E10J71K56	6A 60 K 8 V 31
10122	125x45x20	W10E13J92K75	6A 60 K 8 V 31
10128	125x45x32	W10E13J92K75	6A 60 K 8 V 31
10334	150x50x32	W10E15J113K97	6A 60 J 8 V 31

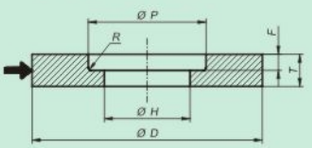
Shape type: 6 32 m/s



Straight Cup Wheel Shape type: 6

Art. No.	Dimensions DxTxH	Additional dimensions	Specification
10141	125x63x32	W8E13	6A 54 J 8 V 31
10370	150x80x32	W13E16	6A 60 J 8 V 31
10589	175x80x76,2	W16E20	6A 60 K 8 V 31
10597	175x100x76,2	W16E16	6A 46 K 8 V 31
10797	200x100x76 2	W25E25	6A 46 K 8 V 31

Shape type: 5 40 m/s

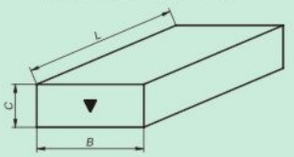


One Side Recessed Grinding Wheel Shape type: 5

Art. No.	Dimensions DxTxH	Additional dimensions	Specification
11025	250x40x76,2	1-P150xF20	6A 60 M 8 V 31

Rectangular Segments

Shape type: 3101 32 m/s



Rectangular Segments Available From Stock Shape type: 3101

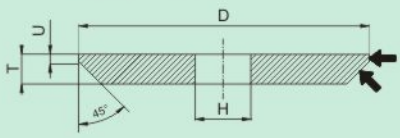
Art. No.	Dimensions LxBxC	Specification
10358	150x80x25	6A 36 H 8 V 38
10360	150x80x25	6A 30 G 8 V 38
10802	200x120x30	1C 30 N 5 V 36

We offer a wider range of segments for orders. Please ask our individual offer for your specific needs.

Straight Grinding Wheels and Grinding Wheel with Profile for Tool and Saw Sharpening

These products are recommended for tool sharpening with 40 m/s maximum operating speed for mechanically guided grinding!

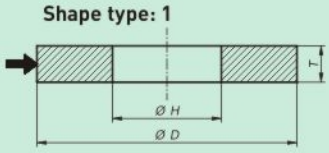
Shape type: 1C



Product Recommendation:

- For general applications we recommend using wheels with our 6A90P5V38 specification.
- For harder metals and for faster work we recommend using rougher and softer versions.
- If you need enhanced performance we recommend using our products containing 7A or 9A grain.
- For more precise jobs as well as for improved edge holding we recommend that you try one of our sandwich wheels!

Shape type: 1



Straight Grinding Wheels with Profile Shape type: 1C

Art. No.	Dimensions DxTxH	Specification
10081	125x10x20	6A 90 P 5 V 38
10240	150x10x20	6A 90 P 5 V 38
10246	150x10x32	6A 90 P 5 V 38
10247	150x10x32	6A 60 M 5 V 38
10424	175x10x20	1C 60 K 5 V 36
10428	175x10x20	6A 90 P 5 V 38
10442	175x10x32	6A 60 M 8 V 38
10443	175x10x32	6A 90 P 5 V 38
10636	200x10x20	6A 90 P 5 V 38
10645	200x10x32	6A 90 P5 V 38
10648	200x10x32/25/20	6A 60 M 8 V 38
10838	250x10x20	6A 90 P 5 V 38
10852	250x10x32/25/20	6A 60 N 8 V 38
10853	250x10x32/25/20	6A 60 M 8 V 38
10850	250x10x32	6A 90 P 5 V 38
11067	300x10x32/25/20	6A 90 P 5 V 38
11068	300x10x32/25/20	6A 80 N 5 V 38

Straight Grinding Wheel Shape type: 1

Art. No.	Dimensions DxTxH	Specification
10182	150x4x20	7A 60 N 5 V 31
10212	150x6x20	6A 60 N 8 V 31
14234	150x6x32	6A 80 M8 V 31
10438	175x10x32	6A 60 M 8 V 38
10610	200x4x32	9A 80 N 8 V 31

Mounted Points

Art. No.	Dimensions	Specification
50027	20x20x6	6A60M8V38
50024	20x20x6	7A60M8V38
50159	20x25x6	6A60M8V38

Granit is a distributor but not producer of these products.
For other types ask for specific price offer from our colleagues !

Sandwich (two layers) Straight and Profiled Grinding Wheels

Art. No.	Dimensions DxTxH	Specification	
14495	200x12x32/25/20	6A/7A 60 N 8 V 31	U3 sandwich
10862	250x12x32	6A/7A 60 N 8 V 31	sandwich

Stone Dresser Abrasive stick dresser built into steel tube

Art. No.	Dimensions	Specification
10927	250x22	1C 36 P5 V
11113	300x28	1C 24 P5 V

Scythe Stones

Art. No.	Dimensions	Specification
10819	240x35x15	1C 120 P5 V 36
10820	240x35x15	6A 150 N5 V 38

GRANIT RESINOID BONDED GRINDING WHEELS

The resinoid bonded grinding wheels are more flexible than the vitrified bonded wheels due to the characteristics of the bond. They are more resistant to dynamic stress. These tools are mostly used for rough grinding (for example fettling, cast cleaning), but also provide superior performance in specialized applications. Having a lot of experience in manufacturing custom made products we provide a broad range of resinoid bonded wheels, but these are not listed in this catalogue. We offer and develop the specific resinoid bonded wheel version based on the grinding need of our clients and their specific product request.

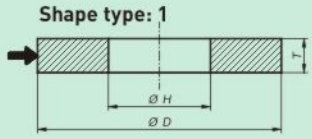
Typical product groups and applications:

- Wheels for cast cleaning: straight or recessed grinding wheels, and wheels with inserted nuts
- Centerless grinding wheels, support wheels
- Segments, cylinder, straight and taper cup wheels for plain grinding
- Wheels for tool sharpening
- Straight and recessed wheels for roll grinding
- Wheels with inserted nuts for face grinding in special applications

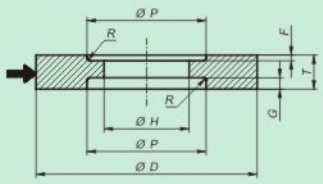
Check the validity date! (For example V 07/2014 (Valid until the end of July 2014)
Should be used within 3 years from the production date!

The products below are available directly from our stock, they constitute as examples from the broad range of resinoid bonded wheels. There is a wider range of individually developed and manufactured products based on special needs and applications.

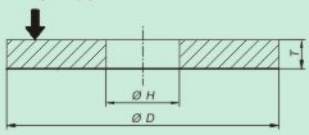
Shape type: 1



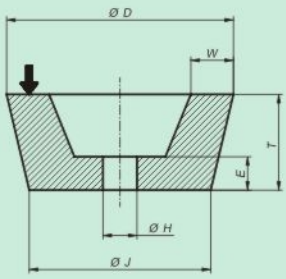
Shape type: 7



Shape type: 35



Shape type: 11



Cast Cleaning Wheels Shape type: 1

Art. No.	Dimensions DxTxH	Specification	Speed	Max RPM	Machine	Packaging Unit (pcs.)
* 30015	150x25x32	1A 24 R4 B	50 m/s	6400 1/min	for hand-held machine	8
* 30163	500x50x203	1A 16 R5 B111	50 m/s	1950 1/min	for stationary or swing frame machine	1

Centerless Grinding Wheels, Support Wheels Shape type: 7

Art. No	Dimensions DxTxH	Specification	Speed	Max. RPM	Designation	Packaging unit (pcs.)
* 30117	1- 300x150x127	1A 120 Q6 B	50 m/s	3200 1/min	straight	1
* 30093	7- 250x125x127 2P160xF25G25	6A 120 P6 B	50 m/s	3850 1/min	two sides recessed	1

Dental Grinding Wheels (Face Grinding Wheels) Shape type: 35

Art. No.	Dimensions DxTxH	Specification	Speed	Max RPM	Machine	Packaging Unit (pcs.)
* 30071	250x8x20	1C 30 R 4 B	50 m/s	3850 1/min	dental grinding wheel	12
* 30070	250x8x20	1C 30 R 4 B	50 m/s	3850 1/min	dental grinding wheel with glass fibre reinforcement, jagged	12

Taper Cup Wheel (max 50 m/s, 8500 1/min) Shape type: 11

Art. No.	Dimensions	Specification	Application	Packaging unit (pcs.)
30209	110/90x56x22	1C 16 Q5 B	stone grinding	6
30222	110/90x56x22	1C 24 Q5 B	stone grinding	6
30210	110/90x56x22	1C 36 Q5 B	stone grinding	6
* 30357	110/90x56x22	1A 201 M8 B	metal grinding	6

* Available for orders. Ask our special offer.

SAFETY RULES

The safety requirements of bonded abrasive products are determined by the EN 12413 Standard. In addition to this Granit products conform to additional, stricter requirements of oSa (Organization for the Safety of Abrasives). We indicate this conformity by using the oSa logo on our products. It is essential that both the manufacturer and user of the grinding tools strictly follow the safety instructions defined by the laws, decrees and technical standards of their respective country and by machine instructions and manuals.

General instructions

- Grinding wheels are fragile, please transport, store and handle them with care. (EN 12413)! They should always be stored in a frost free, dry place in its original packaging on shelves or racks.
- Never use broken, damaged wheels or wheels from unknown source, and without indications!
- Always inspect carefully the products for possible damage, cracks before mounting!
- Vitrified wheels exceeding 80 mm in diameter can be subjected to a sound (ring) test.
- Carefully read the label or the indications on the wheel (sizes, specification, RPM) and make sure that the wheel is suitable for the application and the machine!
- If something is not clear about the safety requirements of the tool, do not hesitate to consult the manufacturer!

Mounting of abrasives

- Carefully inspect the wheel guard and mounting devices: they must conform to the relevant rules, must be in good mechanical condition and free of foreign bodies!
- The clamping flanges and mounting devices must conform to the machine manual, EN 13218, ISO 666 and „FEPA Safety Code "!
- The blotters should conform to EN 12413!
- Mounting, balancing and dressing of abrasives must be performed only according to the basis of the machine manual by a qualified trained person!
- After mounting start the machine and run it idle for at least 30 seconds, with all personnel staying away from the machine!

Usage

- Operating speed and RPM must never exceed the max. operating speed or RPM printed on the wheel label or on the grinding wheel itself!
- Never force the wheel when using it on Hand Held Machines! The weight of themachine is sufficient.
- Never use cutting wheel for grinding!
- Resin bonded tools can be used within three years from the production!
- Always use personal protection!

Please find further important safety information for the cutting and grinding discs on page 8!

Further safety information:
www.granitnet.hu
www.fepa-abrasives.org
www.osa-abrasives.org

Positioning mark

The wheels may have positioning marks on their side. Care must be taken to ensure that these marks occupy the position shown in the above picture (i.e. the arrows point downwards) when the wheel is mounted on the spindle.

RPM and operating speed

Wheel diameter mm	Operating speed RPM 1/min							
	32 m/s	35 m/s	40 m/s	45 m/s	50 m/s	63 m/s	80 m/s	100 m/s
80	7650	8400	9550	10750	12000	15100	19100	23900
100	6150	6700	7650	8600	9550	12100	15300	19100
115	5350	5850	6650	7500	8350	10500	13300	16650
125	4900	5350	6150	6900	7650	9650	12250	15300
150	4100	4500	5100	5750	6400	8050	10200	12700
175	3500	3850	4400	4910	5500	6900	8750	10900
180	3400	3750	4250	4800	5350	6700	8500	10650
200	3100	3350	3850	4300	4800	6050	7650	9550
230	2700	2950	3350	3750	4200	5250	6650	8350
250	2450	2700	3100	3450	3850	4850	6150	7650
300	2050	2250	2550	2870	3200	4050	5100	6400
350/356	1750	1950	2200	2450	2750	3450	4400	5500
400/406	1550	1700	1950	2150	2400	3050	3850	4800
450/457	1400	1500	1700	1950	2150	2700	3400	4250
500/508	1250	1350	1550	1750	1950	2450	3100	3850
600/610	1050	1150	1300	1450	1600	2050	2550	3200
750/762	820	895	1050	1150	1300	1650	2050	2550
800/813	765	840	960	1075	1200	1550	1950	2400
900/914	680	750	850	955	1100	1350	1700	2150

These products are not manufactured by Granit, they are only distributed!

Fibre Discs

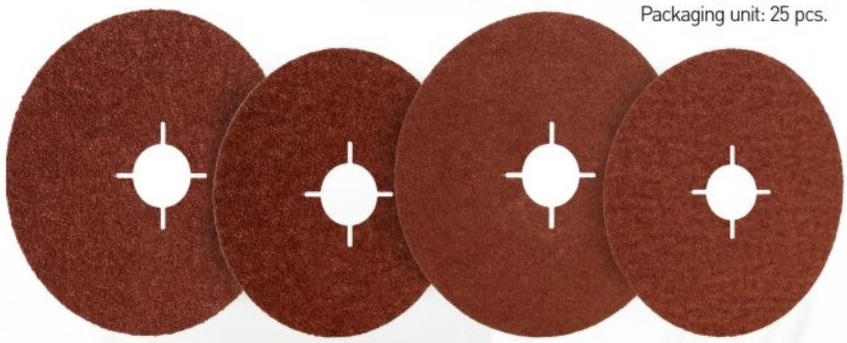
High quality fibre discs have a broad range of universal application. They are particularly suitable for metal grinding including rough grinding and sanding; working on surfaces and edges; derusting; deburring; cleaning and eliminating scraches.

Art. No.	Diameter (mm)	Grain
50310, 50142, 50144	115	P36, P60, P80
50690, 50141, 50142	115	P80, P100, P120
50720, 50147, 50148	125	P36, P40, P60
50149, 50680, 50683	125	P80, P100, P120

Packaging unit: 25 pcs.

Benefits & Applications:

- The extensive grit range ensures that there is a fibre disc for all of your grinding tasks
- The closed grain structure guarantees that your fibre discs last longer
- The hard, fragile grains ensure consistent performance and limited clogging
- With the well shaped hole pattern the disc becomes more flexible, so it adapts very well to the outline of the multiple backing pads



Velcro Discs

Velcro Discs

Art. No.	Diameter (mm)	Grain
50192, 50194	115	P40, P60, P80
50195, 50193	115	P100
50212, 50229	125	P40, P60
50233, 50221	125	P80, P100
50222, 50213	125	P120, P180
50214, 50217	125	P240, P280
50571, 50238, 50243	150	P40, P60, P80
50241, 50235	150	P100, P120

Packaging unit: 50 pcs.

Benefits & Applications:

- The velcro disc are characterized by strong paper carrier resisting heavy duty, self sharpening grains and high quality resins to deliver the best grinding performance
- The performance is steady and consistent throughout the life of the disc
- The user friendly design ensures short set up time as the discs can easily be attached and removed from the clamping discs

Cloth sheets

A4 Cloth Sheets

Art. No.	Grain
50271, 50276, 50280	P40, P60, P80
50265, 50266, 50267	P100, P120, P150
50268, 50498, 50499	P180, P240, P320

A3 Cloth Sheets

Art. No.	Grain
50289, 50288	P40, P50
50291, 50292, 50284	P60, P80, P100
50285, 50286, 50287	P120, P150, P180

Packaging unit: 50 sheets

GRANIFLAP High Quality Flap Discs

The new generation flap discs meet the challenges of the industry, providing work with ease and reducing your grinding and finishing cost. The discs work consistently and economically on grinding surfaces, breaking edges, rounding corner, cleaning welds. The cloth and the grain wears together ensuring the sharp grains get free to work through the whole life of the disc. Compared to traditional tools the removal ability is multiplied.
The discs are constructed with zirkon and with aluminimum oxide grains, in flat and convex versions.

Benefits & Applications:

- The convex form is used for working on both inaccessible locations and for surface grinding.
- Work with the convex flap discs in 15-30° angle, the flat disc working angle is lower as 0-15°.
- Cool grinding will be achieved with smaller contact surface demanding lower load
- For grinding wood use the larger grit sizes with lower RPM..
- Zirconium grains have high mechanical strength which ensures consistently high performance and longer life.

The convex flap discs are available from stock, the flat version only for orders. We can also provide other grain sizes and 150 mm diameter version – there is a minimum order size!

Name	Art. No	Dimension DxH	Grain	Type
Graniflap	57013, 57014, 57015	115x22,23	Z40, Z60, Z80	zirconium
Graniflap	57017, 57018, 57019	125x22,23	Z40, Z60, Z80	
Graniflap	57022	180x22,23	Z80	
Granit Economy	57082, 57083, 57086	115x22,23	Z40, Z60, Z80	
Granit Economy	57084, 57085, 57087	125x22,23	Z40, Z60, Z80	

Packaging unit: 10 pcs.
Max. grinding speed 80 m/s

Name	Art. No	Dimension DxH	Grain	Type
Graniflap	57001, 57002, 57003	115x22,23	A40, A60, A80	normal corundum
Graniflap	57005, 57006, 57007	125x22,23	A40, A60, A80	
Graniflap	57009, 57010	180x22,23	A40, A60	
Granit Economy	57076, 57077, 57080	115x22,23	A40, A60, A80	
Granit Economy	57084, 57079, 57081	125x22,23	A40, A60, A80	

Packaging unit: 10 pcs.
Max. grinding speed 80 m/s

Your dealer:

Please follow the recommended safety instructions whenever you are transporting, handling or working with any of our products!

Geometrical range of our products (outside diameter): Resinoid and Vitrified Bonded Grinding Wheels 75-900 mm, Cutting and Snagging Discs 75-500 mm.

For selecting the optimal grinding tool suited to your particular grinding task please use the General Recommendation for Grinding Tool Selection of this catalogue or ask assistance from our in-house experts as well as our distributors.

For special grinding tool needs please contact us as we are able to give you a customized product recommendation and to make an offer for a non-standard product that we can flexibly manufacture for you suited to your shape, size, grain, hardness or composite structure needs.

GRANIT ABRASIVE

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2011