

Technical Information

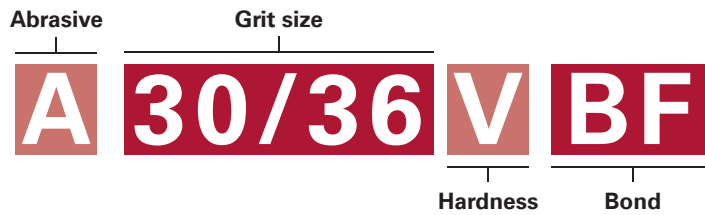
Durability

Resin bonded grinding and cutting wheels for free-hand application must be used within three years of manufacture. Please see metal ring for the expiry date which is specified by month and year; for instance V07/2018.



Labelling system for resin bonded grinding wheels

Example:



Abrasive Type	Grit			Hardness Grade			Bond
	coarse	medium	fine	soft	medium	hard	
A – aluminium oxide	12	36	60	M	R	U	BA – resin bond
C – silicon carbide	up to	up to	bis	Q	S	V	BF – resin bond, fibre-reinforced
Z – zirconia alumina	24	54	120	P	T	Z	

Working speed

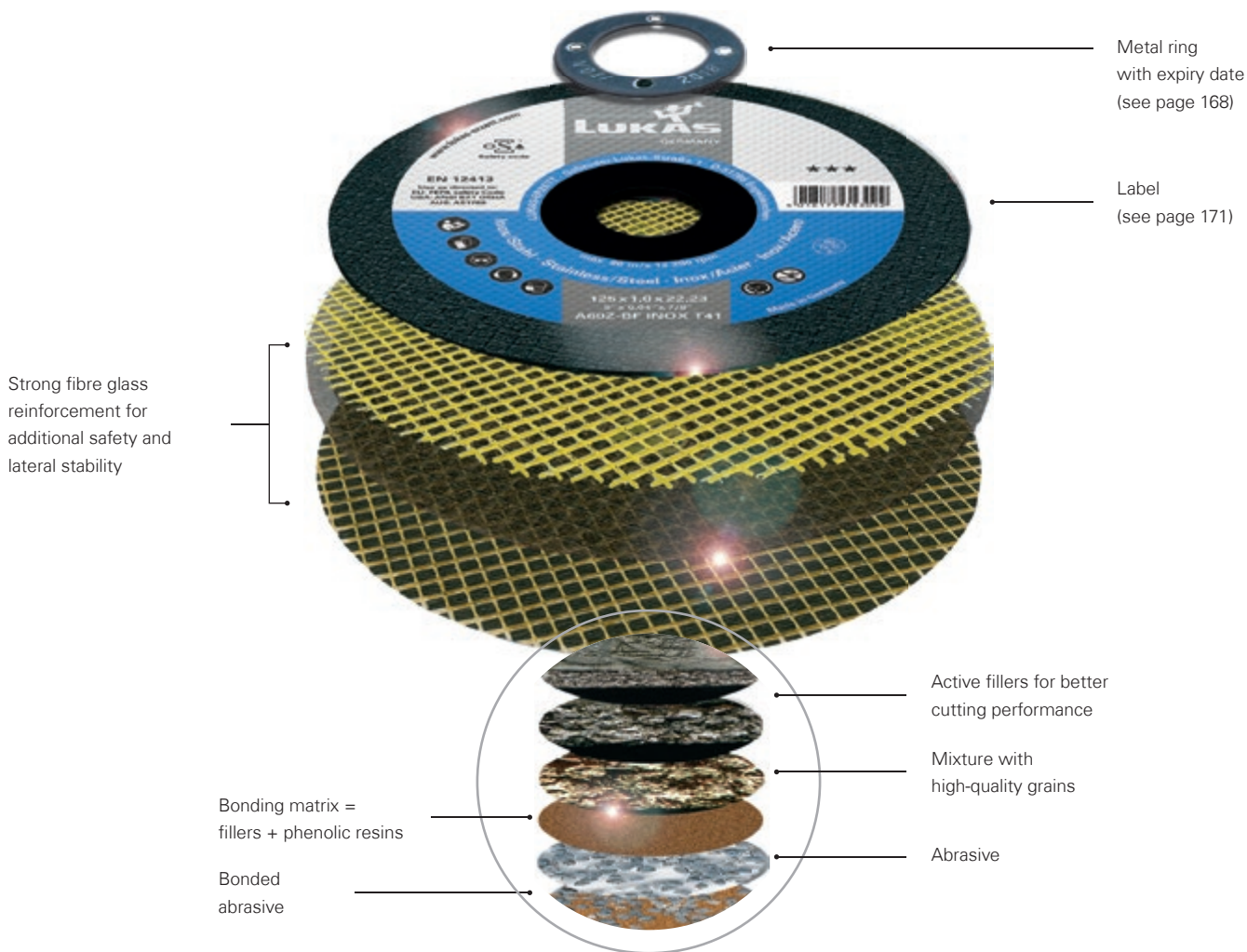
LUKAS grinding discs are developed and tested for specific maximum working speeds and grinding processes.

Prior to mounting the grinding tool on the machine, it must be ensured that the machine's nominal speed (as specified on nameplate) does not exceed the maximum operating speed indicated on the grinding wheel or disc.



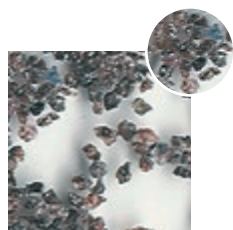
Maximum operating speed	Diameter of Disc [mm] /RPM [min-1]										
	50	76	100	115	125	150	180	230	300	350	400
80 m/s	30.500	20.100	15.300	13.300	12.200	10.200	8.500	6.600	5.100	4.400	3.800
100 m/s	38.200	25.100	19.100	16.650	16.600	12.700	10.600	8.300	6.400	5.400	4.700

Structure and Components

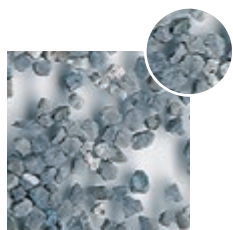


Cutting, Grinding (conventional)

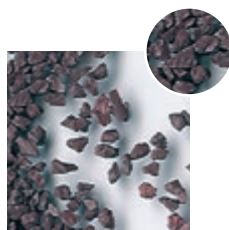
Abrasive



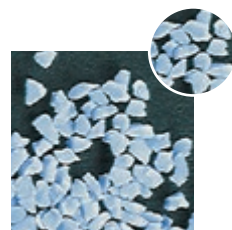
Semi-friable aluminium oxide



Zirconia alumina



Vitrified coated roasted aluminium oxide



Ceramic grain

Safety

With regards to occupational safety and operational convenience, LUKAS responsibility to the customer is taken very seriously. Our products are designed, manufactured and produced in accordance with the most stringent quality standards to provide a maximum of customer value at minimum risk. We are a member of both, the German Abrasive Association (VDS) and the Organisation for the Safety of Abrasives (oSa) and thus actively contribute to users' health and safety.

Applied standards:

- Safety Requirements for Bonded Abrasives Products: EN12413
- Safety Requirements for Diamond Blades: EN13236

Safety recommendations

- Don't handle wheels roughly.
- Don't use non-reinforced cut-off wheels on portable machines.
- Don't store wheels in a damp atmosphere or in extreme temperatures.
- Don't mount a damaged wheel.
- Don't ever exceed the maximum operating speed marked on the wheel.
- Don't force a wheel onto a machine spindle.
- Don't use mounting flanges which are incorrect, damaged, dirty or burred.
- Don't tighten the mounting nut or locking flange excessively. To do so can distort the flanges and discs.
- Don't use a machine without a wheel guard.
- Don't use wheels without proper ventilation or dust protection equipment.
- Don't apply side pressure to cut-off wheels. You should not bend the wheel.



- Don't stop the wheel by applying pressure to the periphery or face. Always switch the machine off and allow the wheel to stop revolving.
- Don't allow the wheel to be trapped or pinched in the cut.
- Don't apply excessive pressure onto the wheel so that the driving motor slows down.
- Don't drop or lower a portable machine by the cable or airline onto the floor. A wheel can be easily cracked, if it is put down hard, by the weight of the machine. This is a common cause of wheel breakage.
- Don't grind with a depressed centre grinding wheel at an angle below 30 degrees to the work piece.
- Don't use a machine in a position where you do not have full control of the machine and you are not well balanced.

Clamping System

The use of flanges with unequal diameters is not allowed. Both flanges between which the bonded abrasive is mounted must have the same outer diameter and similar contact areas (according to EN60745-2-3:2007 and ANSI B.7.1).



Labelling

Safety standard

Manufactured according to EN 12413

Safety recommendations

max. operating speed

A = Aluminium oxide
C = Silicon carbide
AC = Aluminium oxide / Silicon carbide
ZA = zirconia alumina / aluminium oxide

Quality
★★★ High Performance
★★☆ Industry
★☆☆ Base

EAN Code

Application

max. rpm

Application instructions

60 = Grit size
(16/very coarse, 36/medium, 60/Fine)

B = resin bond
F = fibre-reinforced

125 x 1,0 x 22,23
5" x 0,04" x 7/8"
Diameter x thickness x bore size

125 x 1,0 x 22,23 = D x U x H
5" x 0,04" x 7/8" = D x U x H
Diameter x thickness x bore size

Cutting, Grinding (conventional)

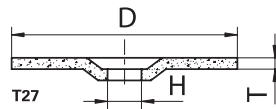
Types of resin-bonded grinding wheels

<p>Cutting discs U = (0,8 mm–4,5 mm) (USA: Typ 1)</p> <p>T 41 Straight cutting discs</p> <ul style="list-style-type: none"> • Available in diameters from 50 (2") to 230 mm (9") for freehand applications • from 300 mm (12") to 500 mm (20") for use in stationary machines 	<p>Cutting discs U = (0,8 mm–4,5 mm) (USA: Typ 27)</p> <p>T 42 Depressed centre cutting discs</p> <ul style="list-style-type: none"> • Available in diameters from 76 (3") to 230 mm (9"), allowed for freehand use. 	<p>Grinding discs U = (3 mm–10 mm) (USA: Typ 27)</p> <p>T 27 Depressed centre grinding discs</p> <ul style="list-style-type: none"> • Available in diameters from 76 (3") to 230 mm (9"), allowed for freehand use.
---	---	--



Cutting and grinding
without tool change.
Safe. Precise. Perfect.

Grinding and cutting discs to machine stainless steel –
PROGRESS COOL JOBBER

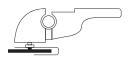


Ordering example: AS015675V9802

T27 = depressed centre

Iron, sulphur and chlorine free

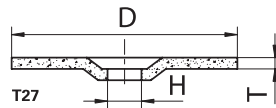
$v_{max.}$: 80 m/s



PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438									
AS015675V9802	T27 115x2,0	A36V-BF Inox COOL JOBBER	115	2,0	22,23	13.300	1	2	3	4	6				■	25
AS015676V9802	T27 125x2,0	A36V-BF Inox COOL JOBBER	125	2,0	22,23	12.200	1	2	3	4	6				■	25

Grinding discs to machine stainless steel – **PROGRESS**

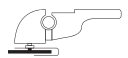


Ordering example: AS013491V9802

T27 = depressed centre

Iron, sulphur and chlorine free

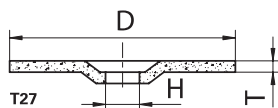
$v_{max.}$: 80 m/s



PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438									
AS013491V9802	T27 115x7,0	A24U-BF Inox	115	7,0	22,23	13.300	1	2	3	4	6				■	10
AS013492V9802	T27 125x7,0	A24U-BF Inox	125	7,0	22,23	12.200	1	2	3	4	6				■	10
AS013496V9802	T27 230x7,0	A24U-BF Inox	230	7,0	22,23	6.600	1	2	3	4	6				■	10

Grinding discs for stainless steel – PROMAX



Ordering example: AS003100V9802

T27 = depressed centre

Iron, sulphur and chlorine free

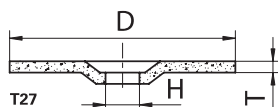
 $v_{max.}: 80 \text{ m/s}$


PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438		
AS003100V9802	T27 115x6,0	A24X-BF Inox	115	6,0	22,23	13.300	1 2 3 4 6	■	10
AS003101V9802	T27 125x6,0	A24X-BF Inox	125	6,0	22,23	12.200	1 2 3 4 6	■	10
AS003103V9802	T27 180x6,0	A24X-BF Inox	180	6,0	22,23	8.500	1 2 3 4 6	■	10
AS003104V9802	T27 230x6,0	A24X-BF Inox	230	6,0	22,23	6.600	1 2 3 4 6	■	10

Cutting, Grinding (conventional)

Grinding discs for stainless steel – PREMIUMFLEX



Ordering example: AS000105V9802

T27 = depressed centre

Iron, sulphur and chlorine free

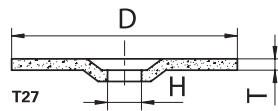
 $v_{max.}: 80 \text{ m/s}$


PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438		
AS002037V9802	T27 100x6,0	A24/30S-BF Inox	100	6,0	16,00	15.300	1 2 3 4	■	10
AS000105V9802	T27 115x6,0	A24/30S-BF Inox	115	6,0	22,23	13.300	1 2 3 4	■	10
AS000106V9802	T27 125x6,0	A24/30S-BF Inox	125	6,0	22,23	12.200	1 2 3 4	■	10
AS000107V9802	T27 150x6,0	A24/30S-BF Inox	150	6,0	22,23	10.200	1 2 3 4	■	10
AS000108V9802	T27 180x6,0	A24/30S-BF Inox	180	6,0	22,23	8.500	1 2 3 4	■	10
AS000109V9802	T27 230x6,0	A24/30S-BF Inox	230	6,0	22,23	6.600	1 2 3 4	■	10

Grinding discs for steel – PROGRESS

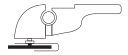
★★★



Ordering example: AS012451V9802

T27 = depressed centre

v_{max.}: 80 m/s

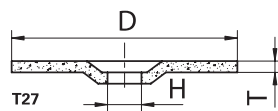


PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438		
AS012451V9802	T27 115x7,0	A24X-BF Steel	115	7,0	22,23	13.300	① ② ③		■ 10
AS012453V9802	T27 125x7,0	A24X-BF Steel	125	7,0	22,23	12.200	① ② ③		■ 10
AS012458V9802	T27 150x7,0	A24X-BF Steel	150	7,0	22,23	10.200	① ② ③		■ 10
AS012466V9802	T27 180x7,0	A24X-BF Steel	180	7,0	22,23	8.500	① ② ③		■ 10
AS012468V9802	T27 230x7,0	A24X-BF Steel	230	7,0	22,23	6.600	① ② ③		■ 10

Grinding discs for steel – PROMAX

★★☆



Ordering example: AS001679V9802

T27 = depressed centre

v_{max.}: 80 m/s

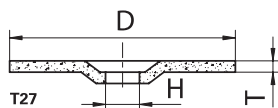


PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438		
AS001679V9802	T27 115x6,0	A24/30T-BF Steel	115	6,0	22,23	13.300	① ② ③ ⑤		■ 10
AS001710V9802	T27 125x6,0	A24/30T-BF Steel	125	6,0	22,23	12.200	① ② ③ ⑤		■ 10
AS001811V9802	T27 230x6,0	A24/30T-BF Steel	230	6,0	22,23	6.600	① ② ③ ⑤		■ 10

Grinding discs for steel – PREMIUMFLEX

★☆☆



Ordering example: AS000667V9802

T27 = depressed centre

 $v_{max.}: 80 \text{ m/s}$

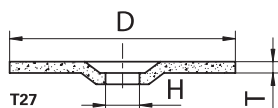

PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438		
AS000667V9802	T27 115x6,0	A24/30S-BF Steel	115	6,0	22,23	13.300	1 2 3		■ 10
AS000690V9802	T27 125x4,0	A24/30S-BF Steel	125	4,0	22,23	12.200	1 2 3		■ 10
AS000692V9802	T27 125x6,0	A24/30S-BF Steel	125	6,0	22,23	12.200	1 2 3		■ 10
AS000712V9802	T27 150x6,0	A24/30S-BF Steel	150	6,0	22,23	10.200	1 2 3		■ 10
AS000737V9802	T27 180x7,0	A24/30S-BF Steel	180	7,0	22,23	8.500	1 2 3		■ 10
AS000762V9802	T27 230x6,0	A24/30S-BF Steel	230	6,0	22,23	6.600	1 2 3		■ 10

 Cutting, Grinding
(conventional)

Grinding discs for cast iron – PROMAX

★★☆☆



Ordering example: AS001711V9802

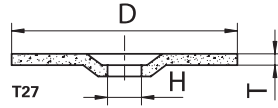
T27 = depressed centre

 $v_{max.}: 80 \text{ m/s}$


PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438		
AS001711V9802	T27 125x6,0	ZA24R-BF Cast	125	6,0	22,23	12.200	1 2 3 5		■ 10
AS001773V9802	T27 180x6,0	ZA24R-BF Cast	180	6,0	22,23	8.500	1 2 3 5		■ 10
AS001812V980201	T27 230x6,0	ZA24R-BF Cast	230	6,0	22,23	6.600	1 2 3 5		■ 10

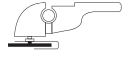
Grinding discs for cast iron – PREMIUMFLEX



Ordering example: AS000867V9802

T27 = depressed centre

$v_{max.}$: 80 m/s

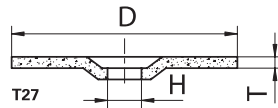


PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438		
AS000867V9802	T27 180x8,0	AC24P-BF Cast	180	8,0	22,23	8.500	5	■	10

Cutting, Grinding
(conventional)

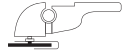
Grinding discs for stone and cast iron – Promax



Ordering example: AS000320V9802

T27 = depressed centre

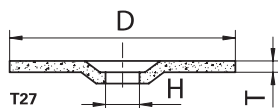
$v_{max.}$: 80 m/s



PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438		
AS000320V9802	T27 180x6,0	C24R-BF Stone	180	6,0	22,23	8.500	5 7	■	10

Grinding discs for stone and cast iron – PREMIUMFLEX



Ordering example: AS001600V9802

T41 = flat

v_{max.}: 80 m/s



PG 7

Product number	Description	Quality	Ø D mm	T mm	H mm	n max. (1/min)	Recommended for Information on page 438		
AS001600V9802	T27 230x6,0	AC24S-BF Stone	230	6,0	22,23	6.600	5 10 11 12	■	10

Cutting, Grinding (conventional)

Material classification

1 Steels and Cast Steels

Rm up to 800 N/mm²

- common structural steels
- free cutting steels
- case hardened steels
- fine grained structural steels
- extruded steels
- toughened structural steels
- boiler plate
- nitrided steels
- cast steels
- heat treated steels
- heat resistant structural steels

2 Alloyed, Tempered Steels

Rm 800 up to 1200 N/mm²

- case hardened steels
- spring steels
- fine grained structural steels
- nitrided steels
- heat treated steels
- wear resistant steels
- bearing steels

3 Tool Steels

Rm up to 1300 N/mm²

- 60–65 HRC
- high-speed steels
- non-alloyed tool steels
- cold working tool steels
- hot working tool steels

4 Rust, acid and heat resistant Steels and Cast Steels

- austenitic
- ferritic
- ferritic-austenitic
- heat-resistant
- martensitic
- stainless, sulphurized

5 Cast Iron

6 Aluminium, Magnesium and Copper Alloys

- over 300 HB
- 200–300 HB
- up to 200 HB
- over 15% Si
- 10–15% Si
- 0,5–10% Si
- below 0,5% Si

7 Titanium and Nickel Alloys

- Rm 900 up to 1500 N/mm²
- Rm up to 900 N/mm²

8 Plastics, Wood, Rubber

9 Glass/Carbides

10 Stone/Tiles/Gas Cement

11 Concrete/Reinforced Concrete

12 Ceramic/Floor Tiles

13 Marble

14 Granite

15 Freshly Poured Concrete

16 Asphalt

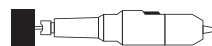
● best suitable

○ suitable

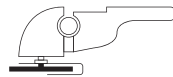
■ delivery ex-stock

▲ delivery on request

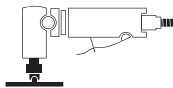
Power tools



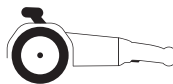
Straight grinder



Free-hand angle grinder



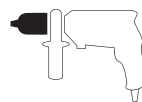
Pneumatic angle grinder



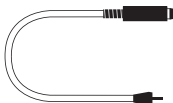
Conditioning machine



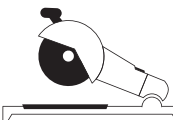
Backstand



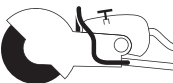
Boring machine



Flexible shaft grinder



Fixed-base cutting machine



Petrol-driven cutting machine

Product Lines

★★★ High Performance

★★☆ Industry

★☆☆ Base

Safety Symbols

(Depending on the product these symbols may vary)



Wear eye protection



Wear hearing protection



Wear a respirator



Read the instructions



Wear gloves



Only permitted with a back-up pad



Not permitted for wet grinding



Not permitted for face grinding



Do not use if damaged



Not permitted for hand-held or manually-guided grinding