



HERMES

AUTOMOTIVE PROGRAM

Hermes solutions for Automotive OEM

Online

Hermes⁴Automotive.com



for an
excellent finish

HERMES ONE-STOP SOLUTION FOR AUTOMOTIVE OEM MANUFACTURERS

YOUR REQUIREMENTS IN TERMS OF
COST EFFICIENCY, SURFACE QUALITY AND A
VAILABILITY ARE CONSTANTLY INCREASING.

WE AT HERMES HAVE AN EXTENSIVE PORTFOLIO
OF ABRASIVE SOLUTIONS FOR ALL APPLICATIONS WITH
AN EXCELLENT PRICE/PERFORMANCE RATIO.



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PRODUCT HIGHLIGHTS

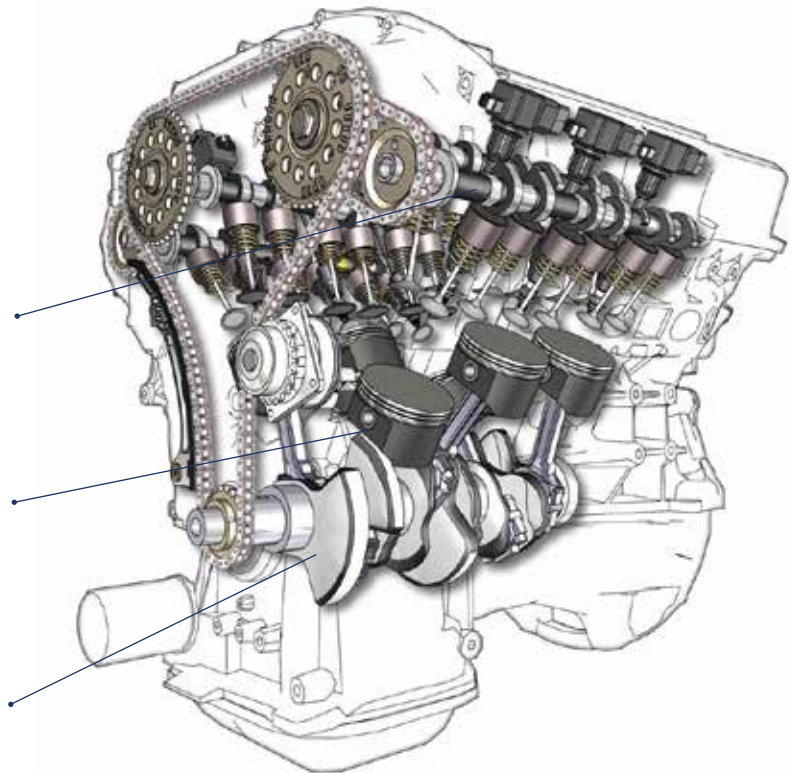
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Engine-building



The "heart" of any vehicle, the engine, would not work without the high-precision machining of functional surfaces such as the bearing surfaces of crankshafts and camshafts.

Hermes provides a one-stop shop for every abrasive required to achieve final values for dimension, concentricity, surface finish and percentage contact area. Hermes abrasives generate significant process benefits, all the way from initial grinding with CBN grinding wheels to the final superfinishing step using index-fed grinding film.





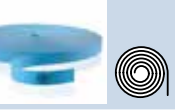


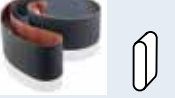
- 1 Initial grinding followed by Superfinishing**
 Camshaft
- 2 Various grinding and finishing applications**
 Functional surfaces of valves, piston rings, bucket tappets, connecting rods etc.
- 3 Initial grinding followed by Superfinishing**
 Crankshaft

EXAMPLE FOR CRANKSHAFT GRINDING

INITIAL GRINDING	1. FINISHING STEP	2. FINISHING STEP
		
CBN Grinding wheel 23B 151 07 V42 150	Abrasive film rolls FB 637, P 500	Abrasive film rolls FB 637, P 2500



RECOMMENDATIONS FOR ENGINE-BUILDING

HERMES TYPE	INITIAL GRINDING (Recommended grit range)	FINISH (Recommended grit range)
 <p>CBN grinding wheel with segmented coating and high-performance bonding V42 for grinding crankshafts 23B 151 07 V42 150</p>	151 ... 181	107 ... 126
 <p>CBN Grinding wheel for camshaft grinding 29B 151 07/6 V242K 176</p>	107 ... 151	
 <p>Abrasive film roll FB 637</p>		P 280 - P 2500
 <p>Abrasive cloth roll RB 346 MJ</p>		P 240 - P 800
 <p>Cloth abrasive belt with cork Cork RB 515 X</p>		P 400 - P 1000
 <p>Agglomerate cloth abrasive belt MERCURIT® 598 Y</p>		P 600 - P 1200

More product information on page 18 - 29

GRIT SIZE COMPARISON μ / FEPA P (FB 637)

μ	100	80	60	50	40	35	30	26	22	20	15	13	9
FEPA-P	120	180	240	280	360	400	500	600	800	1000	1200	1500	2500

EXAMPLE FOR CAMSHAFT GRINDING

INITIAL GRINDING	1. FINISHING STEP	2. FINISHING STEP
		
<p>CBN-Grinding wheel 29B 151 07/6 V242K 176</p>	<p>Abrasive film rolls FB 637, P 400</p>	<p>Abrasive film rolls FB 637, P 1200</p>



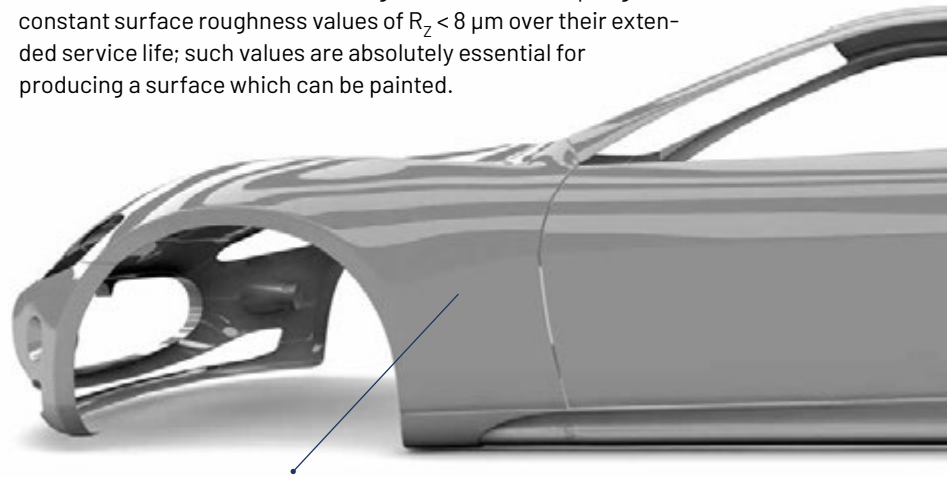
Press & Body Shop



Both production processes in bodywork manufacture and design conditions will require mechanical reworking of certain areas of bodywork as a function of vehicle model.

In this area, Hermes supplies an extensive selection of abrasives to create a surface which can be painted – everything from initial grinding to precision finishing – all to suit the enormous range of materials used.

Specific tool developments, such as HERMESIT® abrasive discs which are three-dimensional on the abrasive grain side, for example, guarantee constant surface roughness values of $R_z < 8 \mu\text{m}$ over their extended service life; such values are absolutely essential for producing a surface which can be painted.

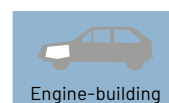


Manual defect grinding

Surface defects

HERMES RECOMMENDATIONS FOR STEEL BODY COMPONENTS

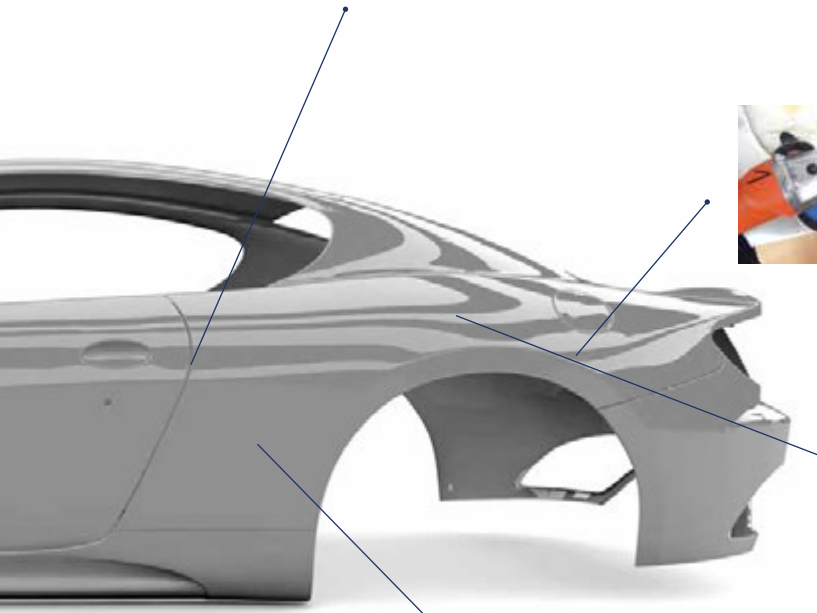
INITIAL GRINDING FLANGES	INTERMEDIATE GRINDING	FINISH
		
VEL ceramic grain cloth disc CR 456 Z VEL Ø 125 mm, + 40	VEL ceramic grain cloth disc CR 456 Z VEL Ø 125 mm, + 80	VEL cloth disc RB 530 J VEL Ø 150 mm, P 120
 n = 5400 min ⁻¹	 n = 5400 min ⁻¹	 n = 12000 min ⁻¹ , Orbit: 5/16", plus backing pad MULTIHOLE, hard





Initial grinding with angle grinders

Weld spots and flanges



Initial grinding with angle grinders

Surface defects



Manual highlighting

Fault detection

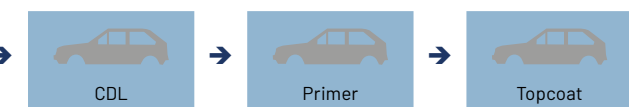


Finish with random orbital sanders









Surface defects

HERMES RECOMMENDATIONS FOR GRINDING ALUMINUM

INITIAL GRINDING BIGGER DEFECTS (OPTIONAL)	INITIAL GRINDING	FINISH	SPECIAL FINISH (OPTIONAL)
VEL paper disc VC 151-Longlife VEL Ø 125 mm, P 100	VEL paper disc VC 151-Longlife VEL Ø 150 mm, P 120	VEL paper disc VC 151-Longlife VEL Ø 150 mm, P 240	Net disc FineNet FN 915 VEL Ø 150 mm, + 360
 n = 6000 min ⁻¹	 n = 16000 min ⁻¹ , Orbit: 8 mm plus backing pad MULTIHOLE, hard	 n = 16000 min ⁻¹ , Orbit: 5 mm, plus backing pad MULTIHOLE, medium	 n = 16000 min ⁻¹ , Orbit: 5 mm, plus backing pad MULTIHOLE, medium

















Recommendations Press & Body Shop, Part 1

Type / Application	microlite Highlighter stick SCG 120 BU 70	microlite Highlighter stick EKW 120 BU 70	Diamond Highlighter strip DB 661SK	Sandscreen GA 924	MultiNet MN 921 VEL	webrax- OA 713 VEL	webrax- OA 708 VEL	FineNet FN 915 VEL	VC 151- Longlife VEL
	 Code 93100	 Code 93200	 Code 66105	 Code 92400	 Code 92177	 Code 71307	 Code 70807	 Code 91527	 Code 15177












HIGHLIGHTING

Steel	+ 120 ●●●	+ 120 ●●	+ 400 ●●● (yellow)	+ 400 ●●	P 240 ●●			+240 ●●●	P 180 - P 240 ●
									
Aluminum	+ 120 ●●	+ 120 ●●●	+ 800 ●●● (white)	+ 600 ●●	P 320 ●●			+360 ●●●	P 240 - P 400 ●●●
									



GRINDING DEFECTS

Steel					P 240 ●	+ 180 ●●		+240 ●	P 80 - P 150 ●
									
Aluminum					P 240 ●●	+180 ●●	+280 ●●	+360 ●	P 100 - P 240 ●●●
									





GRINDING FLANGES

Steel									
Aluminum									






INTERMEDIATE SURFACE GRINDING

Steel									P 80 - P 150 ●
									
Aluminum									P 100 - P 240 ●●●
									

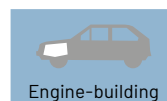


SURFACE FINISHING










Steel									P 80 - P 150 ●
									
Aluminum					P 240 ●●●				P 100 - P 240 ●●●
									

Product suitability

●●● highly suitable ●● very suitable ● suitable



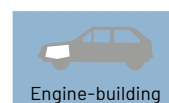
Recommendations Press & Body Shop, Part 2

Type / Applications	Fastlock webrax-AN 704 50 Fastcut	Fastlock* webrax-AN 701 50	Fastlock* RB 486 44 Z	Fastlock* CERAMIT® CR 456 fiber Procut	Abrasive sleeves RB 346 CX	Flap wheels with shaft FW 340 X
		 Code 70150	 Code 48644	 Code 45650	 Code 34662	 Code 34000
 GRINDING FLANGES						
Steel			+36, +50 - +80	•	+36, +80	••
			○		○	
Aluminum			+80	••	+80	••
			○		○	
 INTERMEDIATE SURFACE GRINDING						
Steel	+80	•••	+80, +100	•••	+50 - +80	••
	○		○		○	
Aluminum	+80	••	+100, +280	••	+80	••
	○		○		○	
 INTERMEDIATE SURFACE GRINDING						
Steel					P 50 - P 80	••
					○	○
Aluminum					P 80 - P 150	•
					○	○









* Fastlock = with Fastlock System More product information on page 18 - 29

Product suitability

••• highly suitable
 •• very suitable
 • suitable



HERMES ACCESSORIES FOR ABRASIVES FOR PRESS & BODY SHOP

Grinding machines	Backing pads and accessories for discs			Backing pads for fiber discs	Handblocks for strips		
Random orbital sanders	VEL-Backing pad FJ for random orbital sander	VEL-Backing pad J/X for angle grinder	VEL-Handpad with loop	Backing pads for angle grinder	VEL-Combi block with a hard and soft side	VEL-Handblocks with lateral recessed grips	
 Codes 94416, 94417, 94418	 Codes 90287/90297	 Codes 90330	 Codes 90331	 Code 90339	 Codes 90329, 90331, 90330	 Code 90335	 Code 90336

Accessories for discs with Fastlock System	Accessories for abrasive sleeves	Accessories for Diamond Highlighting Stick
Backing pads, spindles, adapter	Rubber mandrels	SK-Block
 Codes 90030, 90286, 90288, 90287, 90303	 Code 90340	 Code 90347



Paintshop





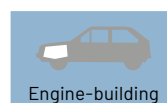
The "exterior" of any vehicle is determined by a perfect, blemish-free painted surface. Even modern paint systems still require steps following filling, priming and top-coating in order to eliminate any paint blemishes or to prepare surfaces for a subsequent coating step.

Hermes supplies a large selection of abrasives to suit the painting materials and the method required up to and including the Hermes polishing system. Modern tool systems such as the MULTIHOLE system, for example, take account of the requirement for dust-free grinding as well as for improved tool lives.

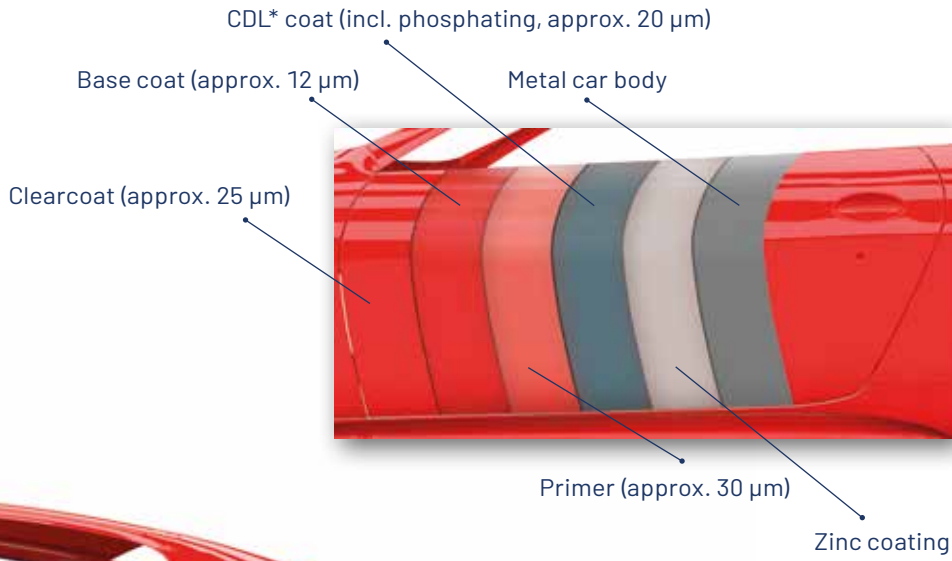


HERMES RECOMMENDATIONS FOR SANDING ELECTROCOAT

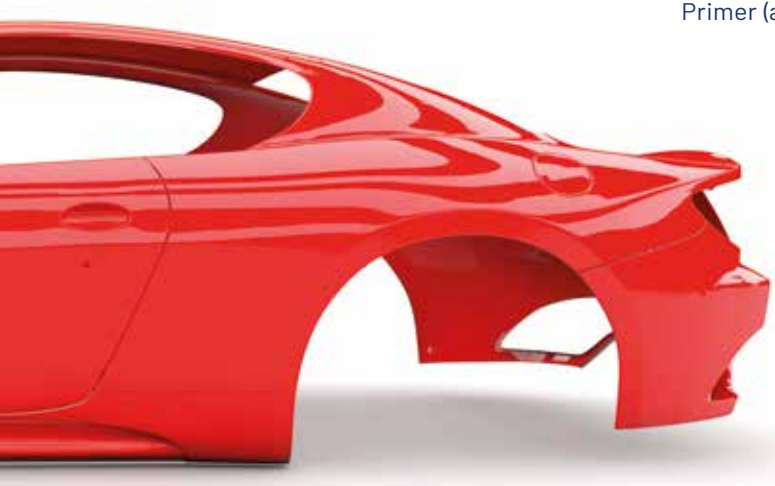
MACHINE SANDING	MANUAL SANDING	
		
<p>VEL paper disc VC 154-Longlife VEL Ø 150 mm, P 240</p>	<p>Foam-based strips VC 154-Longlife FOAM 115 x 125 mm, P 400</p>	<p>Waterproof paper disc WA flex 28 B Ø 125 mm, P 400</p>
 <p>n = 12000 U/min, Orbit: 5 mm, plus backing pad MULTIHOLE, soft</p>		



EXEMPLARY CAR LACQUER LAYER STRUCTURE



*CDL = Cathodic Electrocoating Lacquer












HERMES RECOMMENDATIONS FOR SANDING PRIMER























MACHINE SANDING	MANUAL SANDING	
		
VEL paper disc BRILLIANCE FC 164-Longlife VEL Ø 125 mm, P 600	Waterproof paper disc WA flex 28 B Ø 125 mm, P 800	Net disc FineNet FN 915 VEL MULTIHOLE Ø 75/125/150 mm, + 800
 n = 12000 U/min, Orbit: 5 mm, plus backing pad MULTIHOLE, soft		






















Recommendations for Sanding Electrocoat and Primer

Type / Applications	Sandscreen GA 924	Sandscreen GA 924 VEL	MultiNet MN 921 VEL	BRILLIANCE FC 164-Longlife VEL	VC 151-Longlife VEL incl. MULTIHOLE	VC 154-Longlife	VC 154-Longlife FOAM	VC 154-Longlife VEL incl. MULTIHOLE	VC 154-Longlife VEL incl. MULTIHOLE
	 Code 92400	 Code 92407	 Code 92177	 Code 16477	 Codes 15177/15179	 Code 15470	 Code 15478	 Codes 15477/15479	 Code 15479

SANDING ELECTROCOAT











Type / Applications	Sandscreen GA 924	Sandscreen GA 924 VEL	MultiNet MN 921 VEL	BRILLIANCE FC 164-Longlife VEL	VC 151-Longlife VEL incl. MULTIHOLE	VC 154-Longlife	VC 154-Longlife FOAM	VC 154-Longlife VEL incl. MULTIHOLE	VC 154-Longlife VEL incl. MULTIHOLE
 Manual	+ 400 / + 500 ●●	+ 400 ●●	P 400 - P 500 ●●●	P 320 - P 500 ●●●	P 320 - P 500 ●●	P 400 / P 500 ●●	P 320 - P 400 ●●	P 320 - P 500 ●●	P 320 - P 500 ●●
					 	 		 	
 By Machine			P 320 - P 500 ●●●	P 240 - P 400 ●●●	P 240 - P 400 ●●			P 240 - P 400 ●●●	P 240 - P 400 ●●●
				 	 			 	

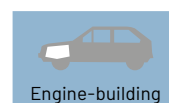
SANDING PRIMER

Type / Applications	Sandscreen GA 924	Sandscreen GA 924 VEL	MultiNet MN 921 VEL	BRILLIANCE FC 164-Longlife VEL	VC 151-Longlife VEL incl. MULTIHOLE	VC 154-Longlife	VC 154-Longlife FOAM	VC 154-Longlife VEL incl. MULTIHOLE	VC 154-Longlife VEL incl. MULTIHOLE
 Manual			P 800 ●●●	P 800 ●●●		P 800 ●●	P 800 ●●	P 800 ●●	P 800 ●●
						 	 		 
 By Machine			P 500 - P 600 ●●●	P 400 - P 600 ●●●	P 400 / P 500 ●●			P 400 - P 600 ●●●	P 400 - P 600 ●●●
				 	 			 	

Product suitability ●●● highly suitable ●● very suitable ● suitable

HERMES ACCESSORIES

Grinding machines	Backing pads and accessories for discs							Handblocks for strips	
Random orbital sander	VEL-Backing pad FJ	VEL-Backing MULTIHOLE hard, medium, soft, super soft	VEL-Soft Pad MULTIHOLE	VEL-Soft Pad	Multiflow-Pad	VEL-Handpad with loop	VEL/SK Disc holder with water storage	VEL-Combi block with a hard and soft side	VEL-Handblock with lateral recessed grips
 Codes 94416, 94417, 94418	 Codes 90287/90297	 Codes 90210/90211/ 90214/90216	 Code 90311	 Code 90311	 Code 90318	 Code 90339	 Codes 90373, 90346	 Code 90335	 Code 90336



VC 154- longlife SK	WS flex 16 VEL incl. MULTIHOLE	FineNet FN 915 VEL incl. MULTIHOLE	WS flex 16	WA flex 28 B	webrax- OA 708	webrax- OA 708 VEL	webrax- OS 709	webrax- OS 709 VEL	Sanding sponge Medium, single-sided
Code 15475	Codes 61607/61609	Code 91527	Code 61601	Code 62820	Code 70800	Code 70807	Code 70900	Code 70907	Code 90358
20- 600	•• P 400 / P 600	• + 360 - + 500	••• P 320 / P 500	• P 400, P 500	••• + 280	•• + 280			• + 180 - + 220
40- 600	••• P 400 / P 600	• + 240 - + 500				••• + 280			
600	•• P 800	• + 800, + 1000	••• P 800 / P 1000	••• P 800, P 1000			••• + 1500	••• + 1500	• + 280 - + 400
40- 600	••• P 400 / P 600	• + 500, + 600						• + 1500	

More product information on page 18 - 29

GRIT SIZE COMPARISON


























FineNet and Sanding sponges				
Conventional abrasives	Hermes FineNet	Main competitor product	Hermes Sanding sponges	Competitive Sanding sponges
180	-	180	100	medium
220	240			
240				
280				
320		180/360	180	fine
360	240/360			
400	360	360	220	extra fine
500				
600	500	500	280	super fine
800	500/600			
1000	600/800			
1200	800/1000	600/1000	400	ultra fine
1500	1000	1000		
2000		1000/2000		

webrax non-woven web	
Description	Standard Hermes
coarse	+ 80
medium	+ 100, + 120
fine	+ 180
very fine	+ 220, + 280, + 360
super fine	+ 500
ultra fine	+ 800, + 1500

Differing product designs make direct grit size comparisons impossible.



Recommendations for Topcoat Finishing

Type / Application	VC 154-Longlife VEL incl. MULTIHOLE	FB 637 SK	FineNet FN 915 VEL incl. MULTIHOLE	webrax-OS 709	webrax-OS 709 VEL
	 Codes 15477/15479	 Code 63705	 Codes 91527/91529	 Code 70900	 Code 70907
TOPCOAT-GRINDING DEFECTS					
 Manual	P 1000 	P 2500 	+ 1000 	+ 1500 	+ 1500 
					
 By Machine	P 800 - P 1500 	P 2500 	+ 800 - + 1000 		+ 1500 
					

More product information on page 18 - 29

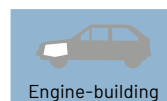
Recommendations for Polishing Preparation

Type / Application	WS flex 16 VEL incl. MULTIHOLE	WS flex 16	WS flex 16 SK 302	
	 Codes 61607/61609	 Code 61601	 Code 61608	
DECKLACK-FEHLERSCHLIFF				
 Manual	P 2000 - + 5000 	P 2000 - + 5000 	+ 2500 - + 5000 	
				
 By Machine	P 2000 - + 5000 		+ 2500 - + 5000 	
				




















More product information on page 18 - 29

HERMES ACCESSORIES





Grinding machines	Backing pads and accessories for discs				
Random orbital sanders	VEL-Backing pad FJ	VEL- Backing pad MULTIHOLE hard, medium, soft, super soft	VEL- Soft Pad MULTIHOLE	VEL- Soft Pad	VEL- Handpad with loop
 Codes 94416, 94417, 94418	 Codes 90287/90297	 Codes 90210/90211/90214/90216	 Code 90311	 Code 90311	 Code 90339



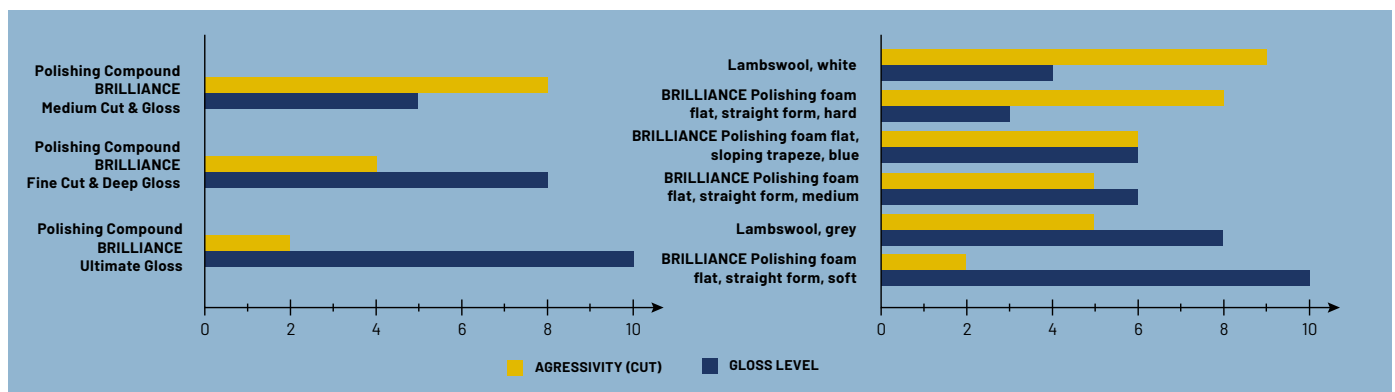
Hermes Polishing System

 <p>Code 90471</p> <p>BRILLIANCE Medium Cut & Gloss Polishing compound, silicone-free</p>		 <p>Code 90472</p> <p>BRILLIANCE Fine Cut & Deep Gloss 1-step Polishing compound, silicone-free</p>		 <p>Code 90473</p> <p>BRILLIANCE Ultimate Gloss Anti-Hologram Polishing compound, silicone-free</p>	
 <p>Code 61608 + 2500</p>		 <p>Code 61608 + 3000 / + 5000</p>		-	
   <p>Orbit: 1/2" - 5/8"</p>		  <p>Orbit: 1/2" - 5/8"</p>		   <p>Orbit: 1/2" - 5/8"</p>	
 <p>Code 90397</p>	 <p>Code 91030</p>	 <p>Code 90397</p>	 <p>Code 91030/91059</p>	 <p>Code 90399</p>	 <p>Code 91030/91059</p>


HERMES ACCESSORIES FOR HERMES POLISHING SYSTEM


Backing pads and accessories for discs			
Accessories for rosette discs	Rosette disc wet applicator	Backing pads for Hermes Polishing-System	BRILLIANCE Microfiber Polishing Cloth Pro
 <p>Codes 90345/ 90286/ 90285/90306</p>	 <p>Code 90373</p>	 <p>Codes 90311, 90320</p>	 <p>Code 90062 400 x 400 mm</p>




CUT/GLOSS VALUE COMPARISON



Product Descriptions

CBN GRINDING WHEEL FOR CRANKSHAFT GRINDING	 29B 151 Q7 V42 150
The benefits for you	Reducing of the grinding time due to optimized bonding system No chatter marks Extremely constant grinding characteristics from the beginning to the end of tool life High profile retention Delivery in series and available with CFRP body construction
Operating speed	125 m/s
Dimension	Form 12A1, segmented 650 x 35 x 132H5 - U... - X...

CBN GRINDING WHEEL FOR CAMSHAFT GRINDING	 29B 151 07/6 V242K 176
The benefits for you	Very high number in parts per grinding wheel and 10% longer tool life in comparison to competitive products Compliance with all relevant geometry and surface requirements in a narrow tolerance range Low process costs
Operating speed	125 m/s
Dimension	Form 14A1 14A1-85 x 50 x 20NB - U... - X...

DEFECT HIGHLIGHTER STICKS / STRIPS	 microlite Defect Highlighter stick SCG 120 BU 70 (code 93100)	 microlite Highlighter stick EKW 120 BU 70 (code 93200)	 Diamond Highlighter strip DB 661SK (code 66105)
Product benefits	Longer tool life in comparison to vitrified-bonded highlighting sticks No smearing No scratches, especially in the edge and radius area No shattering when dropped	Especially suitable for aluminum Longer tool life in comparison to vitrified-bonded highlighting sticks No smearing No scratches, especially in the edge and radius area No shattering when dropped	Longer tool life in comparison to vitrified-bonded highlighting sticks Low clogging characteristics No scratches, especially in the edge and radius area No shattering when dropped
Abrasive grain	Silicon carbide	Aluminum oxide	Diamond
Bonding	Polyurethane	Polyurethane	Resin
Grit range	F 80 ... F 150 Recommendation: F 120	F 80 ... F 150 Recommendation: F 120	400/800

FILM-BACKED ABRASIVES



BRILLIANCE FC 164-Longlife VEL (Code 16477)



FB 637 (Code 63700)

Product benefits	<p>The new film backing combines the advantages of cloth (high edge stability & tear resistance) and paper (high flexibility and low weight). And it allows a uniform grain orientation, which leads to perfect surfaces</p> <p>The semi-open coating and the optimized longlife coating prevent premature clogging and thus guarantee a long life</p> <p>In addition, semi-open coating provides constant removal rates</p> <p>High flatness ensures good running properties and safe automated wheel replacement on robot grinding systems</p> <p>For quick identification, the grit size can be read on the grain side</p> <p>The Brilliance recipe meets the latest requirements of the automotive industry for grinding tools for use on aluminum surfaces</p>	<p>The highly tear-resistant and even polyester film guarantees constant parameters of application during precision grinding operations</p> <p>Closer ranges of tolerance in the coefficients of surface roughness benefit precision grinding, due to compression resistance backing</p> <p>An excellent grain sharpness with bond strength leads to high abrasion of material</p> <p>High-performance</p> <p>Reduced cycle times</p> <p>Oil and emulsion resistant</p>
	Abrasive grain	Aluminum oxide
Bonding	Resin, grey, with additives	Resin, blue
Backing	Film, velour-backed	Film
Coating	Semi-open	Closed
Grit range	P 240, P 320, P 400 - P 2000	P 120, P 180, P 240, P 280, P 360 - P 1500, P 2500, + 4000

CLOTH-BACKED ABRASIVE ROLLS AND BELTS



RB 346 MJ (code 34602)





Cork RB 515 X (code 51522)











MERCURIT® RB 598 Y (code 59830)




Product benefits	<p>Synthetic resin bond ensures excellent grit adhesion</p> <p>Light, flexible cloth backing for grinding contoured workpieces</p> <p>Universally suitable</p>	<p>Long tool life</p> <p>Produces an outstanding fine-structured pattern due to cork particles</p>	<p>Increased efficiency and productivity in comparison to conventional grinding belts due to 3 to 5 times longer tool life (reduced stoppages for belt replacement and machine downtimes, and saving costs on the disposal of used belts)</p> <p>High process stability due to constant roughness values and stock removal rates throughout the entire period of use</p>
	Abrasive grain	Aluminum oxide	Silicon carbide + Cork
Bonding	Resin, red-brown	Resin, black	Resin, black
Backing	J-cloth	X-cloth	Y-cloth
Coating	Closed	Closed	Closed
Grit range	P 60 - P 800	P 150, P 220, P 280, P 400, P 600 - P 1000	P 240, P 320, P 400, P 600 - P 1200

Product Descriptions





ABRASIVES WITH NET BACKING	 MultiNet MN 921 VEL (Code 92177)	 GA 92400 / GA 92407 VEL (codes 92400/92407)
Product benefits	<p>Significantly lower clogging improves surface quality and increases tool life</p> <p>The all-over dust extraction through the MultiNet network structure extends the tool life and improves the working environment.</p> <p>The dust-free and visible working surface enables a quick and exact control of the working result during sanding.</p> <p>Depending on the application at least double service life compared to conventional discs</p> <p>High tear resistance and edge stability</p> <p>Easy disc change as no hole pattern is to be observed</p>	<p>Open mesh structure means no loading and a reduction in dust</p> <p>Long tool life</p> <p>Plain backed discs can be used on both sides</p>
Abrasive grain	not specified	Aluminum oxide
Bonding	Resin, grey	Resin, brown
Backing	Abrasive net, velour-backed	Sandscreen / Sandscreen, velour-backed
Coating	not specified	Open
Grit range	P 240, P 320, P 400 - P 800	+ 400 to + 1000 / + 400, + 600



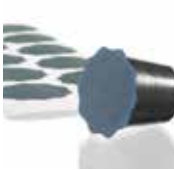

FOAM-BACKED ABRASIVES	 FineNet FN 915 VEL (code 91527)	 VC 154-Longlife Foam (code 15478)	 Sanding sponge medium, single-sided (code 90358)
Product benefits	<p>Abrasive adapts perfectly to contours and very tight radii</p> <p>Minimal loading and the potential to clean the used abrasive results in extended tool life</p> <p>Generates very fine surfaces with consistent surface roughness</p> <p>Dust-free sanding with minimal rework on surfaces</p> <p>Extremely versatile – wet and dry on random orbital sanders or with hand sanding.</p> <p>Pressure-equalizing foam layer facilitates “gentle” sanding and reduces the risk of sanding through surface coatings</p>	<p>For intermediate and fine sanding of primer and filler</p> <p>Additional coating prevents loading with sanding dust</p> <p>Adapts very well to contours due to the soft foam backing</p>	<p>Medium degree of flexibility</p> <p>Adapts very well to shape and small radii</p> <p>Very fine patterned surfaces with constant roughness values</p> <p>Pressure-equalizing foam layer facilitates “gentle” sanding and reduces the risk of sanding through surface coatings</p> <p>Sanding before applying primer in grit range 60 to 180</p> <p>Dry final sanding with grit sizes 220 to 600</p> <p>Universal use</p>
Abrasive grain	Silicon carbide	Aluminum oxide	Aluminum oxide
Bonding	Resin, grey	Resin, Prolub*, pink	Resin, light grey
Backing	Foam- and velour-backed net	C-weight paper, foam-backed	Hard and dense PU foam
Coating	Closed	Semi-open	not specified
Grit range	+ 240, + 360, + 500 to + 1000	P 150, P 180, P 240 - P 320, P 400 - P 800	P 60, P 100, P 150 - P 220, P 280, P 400, P 600





WEBRAX NON-WOVEN WEB ABRASIVES	 webrax-OA 708 (code 70800)	 webrax-OA 708 VEL (code 70807)	 webrax-OS 709 (code 70900)	 webrax-OS 709 VEL (code 70907)	 webrax-OA 713 VEL (code 71307)
Product benefits	Highly flexible, deformable, three-dimensional non-woven web No clogging due to open structure Optimum product structure for hand-sanding	Highly flexible, deformable, three-dimensional non-woven web No clogging due to open structure Especially suitable for cleaning and roughening (body shop & electrocoat)	Highly flexible, deformable, three-dimensional non-woven web Optimum product structure for hand-sanding	Highly flexible, deformable, three-dimensional non-woven web No clogging due to open structure Especially suitable for cleaning and roughening primer	Highly-compressed non-woven web with increased grit density High strength and density of non-woven web fibers for more aggressive applications
Abrasive grain	Aluminum oxide	Aluminum oxide	Silicon carbide	Aluminum oxide	Aluminum oxide
Bonding	Resin, red-brown	Resin, red-brown	Resin, grey	Resin, grey	Resin, light brown
Backing	Non-woven web	Non-woven web, velour-backed	Non-woven web	Non-woven web, velour-backed	Non-woven web, high-density
Coating	Open	Open	Open	Open	Open
Grit range	+ 120, + 180, + 280, + 360	+ 280	+ 180, + 280, + 500, + 800, + 1500	+ 1500	+ 180

STABLE PAPER-BACKED ABRASIVES	 BW 114 VEL (code 11407)	 CERAMIT® CR 116 VEL (code 11627)	 VC 153 VEL (code 15307)
Product benefits	Less loading characteristics Open coating reduces loading with sanding dust, especially with resinous materials (zinc, oil) Stable, tear-resistant F-weight paper backing with good edge stability increases work safety	High stock removal rates especially on stainless steel and high-alloyed steel Very long tool life on composites materials Low grinding temperatures due to additional additives Uniform surface finish	Premium product with very long tool life Sharp aluminum oxide abrasive grain Suitable for low pressure applications Strong paper backing with good edge stability Especially suitable for finishing steel sheets Universally applicable
Abrasive grain	Aluminum oxide	Ceramic	Aluminum oxide
Bonding	Resin, black	Resin, green	Resin, red-brown
Backing	F-weight paper, velour-backed	F-weight paper, velour-backed	E-weight paper, velour-backed
Coating	Closed	Closed	Closed
Grit range	P 60 - P 150	+ 60 to + 180	P 24, P 36 - P 220

Product Descriptions





PAPER-BACKED ABRASIVES	 VC 151-Longlife VEL (code 15177)	 VC 154-Longlife (code 15470)	 VC 154-Longlife SK (code 15475)	 VC 154-Longlife VEL (code 15477)
Product benefits	Low clogging with sanding dust due to semi-open coating and additional coating Highly aggressive For intermediate and final sanding primer and filler Especially suitable for sanding aluminum	Premium product sanding lacquer Long tool life and high stock removal rates due to sharp aluminum oxide abrasives grain Flexible, wear-resistant latex paper backing assures very good adaptations to contours Low clogging with sanding dust due to semi-open coating and additional coating Especially suitable for intermediate sanding lacquer	Premium product sanding lacquer Long tool life and high stock removal rates due to sharp aluminum oxide grain Flexible, wear-resistant latex paper backing assures very good adaptations to contours Low clogging with sanding dust due to semi-open grain coating and additional coatings Good surface qualities when intermediate sanding lacquer Especially suitable for finishing filler and lacquer on random orbital sanders	
Abrasive grain	Aluminum oxide	Aluminum oxide	Aluminum oxide	
Bonding	Resin, with additives, white	Resin, Prolub*, pink	Resin, Prolub*, pink	
Backing	C-weight paper, velour-backed	C-weight paper	C-weight paper, self-stick	B-weight paper, velour-backed
Coating	Open	Semi-open	Semi-open	
Grit range	P 60 - P 240, P 320 - P 500	P 80 - P 1200	P 80 - P 240, P 320 - P 400, P 600, P 800, P 1200	P 80 - P 1500

WATERPROOF PAPER-BACKED ABRASIVES	 WA flex 28 B (code 62820)	 WS flex 16 (code 61601)	 WS flex 16 SK 302 (code 61608)	 WS flex 16 VEL (code 61607)
Product benefits	Highly flexible waterproof latex paper backing Especially suitable for primer and lacquered surfaces as well as for pre-sanding before lacquering Can be used wet or dry	Highly flexible waterproof latex paper backing adapts very well to contours Especially suitable for sanding scratch-resistant lacquer due to hard silicon carbide Can be used wet or dry	Highly flexible waterproof latex paper backing Especially suitable for scratch-resistant lacquer due to hard silicon carbide Especially suitable for topcoat defects	Highly flexible waterproof latex paper backing adapts very well to contours Especially suitable scratch-resistant lacquer due to hard silicon carbide Especially suitable for topcoat defects Can be used wet or dry
Abrasive grain	Aluminum oxide	Silicon carbide	Silicon carbide	Silicon carbide
Bonding	Resin, brown	Resin, grey-blue	Resin, grey-blue	Resin, grey-blue
Backing	B-weight paper, waterproof	B-weight paper, waterproof	B-weight paper, waterproof	B-weight paper, waterproof
Coating	Closed	Closed	Closed	Closed
Grit range	P 400 - P 800, P 1200	P 60 - P 2000, + 2500, + 3000, + 5000	P 1200, + 2500, + 3000, + 5000	P 60, P 400 - P 1200, P 2000, + 2500, + 3000, + 5000


CLOTH-BACKED ABRASIVES	 RB 346 87 MX VEL (code 34687)	 RB 480 24 YX VEL (code 48027)	 CERAMIT® CR 456 Z VEL (code 45647)	 HERMESIT® RB 530 J VEL (code 53067)
Product benefits	Synthetic resin bond ensures excellent grit adhesion Self sharpening ceramic ensures longer tool life High tear-resistant X-cloth increases safety when grinding	High stock removal rates and long tool life due to tough zirconia alumina abrasive grain	Highly economical due to low overall grinding costs Tough and sharp ceramic grain provides high stock removal rates and long tool life Low grinding temperatures due to the additional Procut* coating Highly tear-resistant and waterproof polyester backing with low elongation provides high disc stability	Increased efficiency and productivity in comparison to conventional grinding belts due to 3 to 5 times longer tool life (reduced stoppages for disc replacement and machine downtimes and saving costs on the disposal of used belts) High process stability due to constant roughness values and stock removal rates throughout the entire period of use Especially suitable for applications with low grinding pressure
Abrasive grain	Ceramic / Aluminum oxide	Zirconia alumina	Ceramic	HERMESIT® Aluminum oxide (coated carrier sphere)
Bonding	Resin, red-brown	Resin, blue	Resin, Procut*, green	Resin, brown
Backing	X-cloth	YX-cloth	Z-cloth	J-cloth
Coating	Closed	Closed	Closed	Special
Grit range	P 40, P 60 - P 180, P 240	+ 40, + 60 to + 120	+ 40, + 60, + 80, + 120	P 120, P 150, P 180





* Procut = Size coat with active additives

Product Descriptions


FIBER DISCS	 RB 314 fiber (code 31444)	 RB 414 X-Procut (code 41450)	 CERAMIT® CR 456 fiber-Procut (code 45650)	 HERMESIT® RB 514 J-flex (code 51441)
Product benefits	Long tool life achieved by using a tough aluminum oxide grain and closed coating Universal applications in the bodyshop For grinding carbon steels, aluminum and non-ferrous metal alloys	High stock removal rates due to Zirconia alumina abrasive grain Additional Procut* coating for cool grinding Especially suitable for grinding flanges and welded seams	Long tool life due to high-performance ceramic grain increases economic efficiency Additional Procut* coating means low grinding temperatures Especially suitable for grinding high-alloyed steel	Increased efficiency and productivity in comparison to conventional grinding discs due to 3 to 5 times longer tool life (reduced stoppages for disc replacement and machine downtimes and saving costs on the disposal of used discs) High process stability due to constant roughness values and stock removal rates throughout the entire period of use Especially suitable for applications with low grinding pressure High work safety due to vulcanized fiber backing
Abrasive grain	Aluminum oxide	Zirconia alumina	Ceramic	HERMESIT® Aluminum oxide (coated carrier sphere)
Bonding	Resin, red-brown	Resin, blue	Resin, Procut*, green	Resin, brown
Backing	X-Fiber	X-Fiber	Vulcanized fiber	Vulcanized fiber
Coating	Closed	Closed	Closed	Closed
Grit range	P 16, P 24, P 36 - P 120	+ 36 to + 120	+36, + 50 to + 120	P 120, P 150

* Procut = Size coat with active additives

ABRASIVE SLEEVES	 RB 346 CX (code 34662)
Product benefits	Grinding areas which are hard to reach Use on portable straight grinders for grinding welded seams and deburring bores and cut-outs
Abrasive grain	Aluminum oxide
Bonding	Resin, red-brown
Backing	X-cloth
Coating	Closed
Grit range	P 24, P 36 - P 180, P 240, P 320

ABRASIVES WITH FASTLOCK SYSTEM	 webrax-AN 704 50 Fastcut (code 70450)	 webrax-AN 701 50 (code 70150)	 RB 486 44 Z (code 48644)	 CERAMIT® CR 456 fiber-Procut (code 45650)
Product benefits	Very compact, aggressive non-woven web material Extremely tough abrasive grain provides consistent grinding performance, throughout its life time The compressible structure of the non-woven web excessive grinding of the car body parts Fabric reinforcement increases working safety during grinding process Can be used universally for dry and wet grinding (resistant to water, emulsion and oil)	Compact construction means aggressive grinding Less loading with sanding dust and much finer surfaces compared to conventional discs Outstanding velcro characteristic using the special VEL-Backing pad-X with open backing construction No grinding through when grinding body parts Reinforced cloth backing increases work safety	Zirconia alumina grit ensures high stock removal rates Procut* coating means cool grinding	High stock removal rates and high economic efficiency due to high-performance ceramic grain Low grinding temperatures due to additional Procut* coating Especially suitable for grinding high-alloyed steel Very stiff and stable fiber backing
Abrasive grain	Aluminum oxide	Aluminum oxide/ Silicon carbide	Zirconia alumina	Ceramic
Bonding	Resin, red-brown	Resin, brown	Resin, Procut*, blue	Resin, Procut*, green
Backing	Non-woven web, reinforced with cloth	Non-woven web, reinforced with cloth	Z-cloth	X-Fiber
Coating	not specified	not specified	Closed	Closed
Grit range	+ 80	+ 80, + 100, + 280	+ 36, + 60, + 80	+ 36, + 50 to + 80, + 120

* Procut = Size coat with active additives

FLAP WHEELS WITH SHAFT	 FW 340 X (code 34000)
Product benefits	High degree of grit sharpness and high stock removal rates Flexibility of the fan-shaped cloth flaps allows great adaptability Universally applicable
Abrasive grain	Aluminum oxide
Bonding	Resin, red-brown
Backing	X-cloth
Coating	Closed
Grit range	P 40, P 60 - P 120, P 320

Hermes MULTIHOLE System



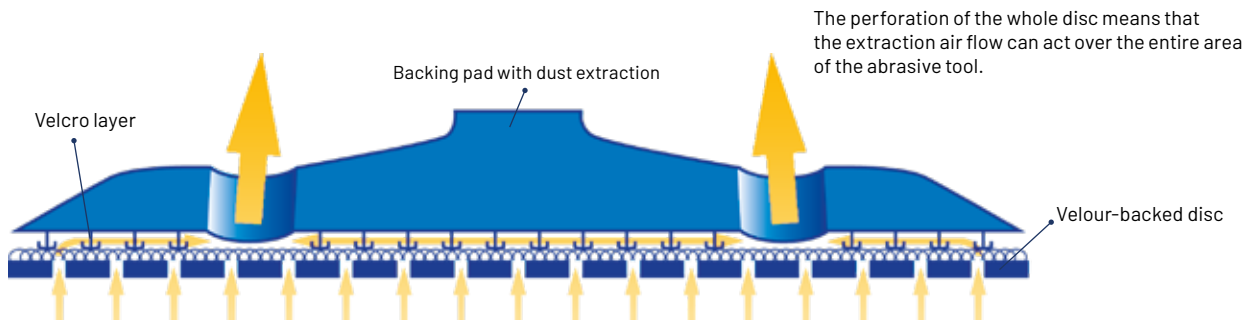
The end of the tool life of a disc is frequently determined by premature loading with dust.

Although conventional extraction processes reduce loading, they cannot prevent it across the whole of the tool surface, in particular. By utilizing **Hermes MULTIHOLE abrasives** it is possible to sand virtually dust-free without the symptoms of loading. Perforating the entire surface of the disc enables dust to be extracted efficiently from the entire surface of the tool.

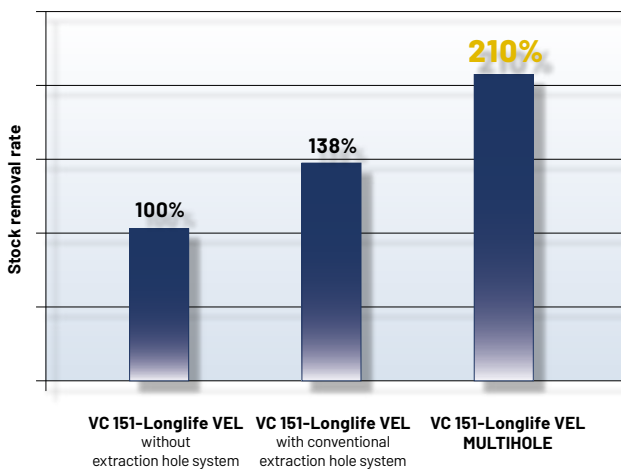
The benefits for you:

- Longer tool life compared to conventional extraction methods
- More economical sanding in comparison to net-like abrasive tools
- Better surface quality: cooling flow of air over the whole surface of the disc reduces sanding temperature
- Reduced problems with sanding dust on sanded surfaces
- Hermes MULTIHOLE discs can be used universally on all conventional backing pads with dust extraction holes

MULTIHOLE PRINCIPLE



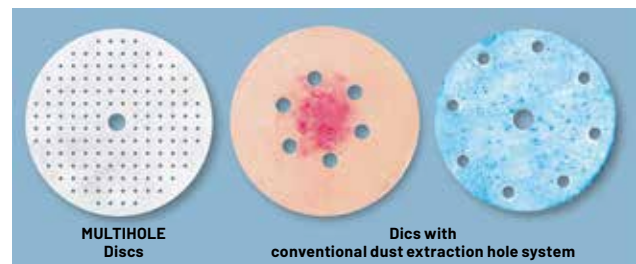
BENCHMARK



Trial parameters

- Machine:** Portable random orbital sander with extraction hole system, orbit 1/8"
- Material:** Primer
- Tools:** Discs, velour-backed, Ø 6", Grit: P 240

LOADING CHARACTERISTICS



In contrast to the MULTIHOLE discs, discs with conventional extraction holes show typical loading patterns in the center and the formation of buildup on the abrasive grain.



Hermes MULTIFLOW pad –

- the backing pad adapter for MULTIHOLE discs
- Full-surface dust extraction
 - Universally applicable on every backing pad
 - Especially suitable for sanding dust-intensive materials
 - Quick disc change possible
 - Combination of MULTIHOLE discs and MULTIFLOW-Pad with better price-performance ratio in comparison to conventional net-abrasives
 - Longer backing pad tool life

FineNet abrasives

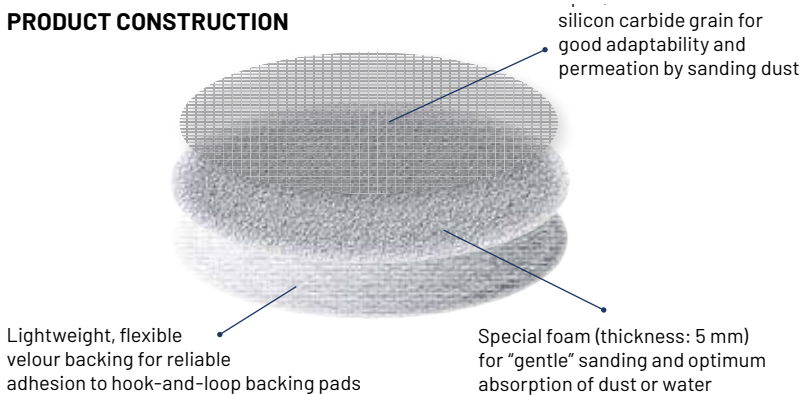
Preparing surfaces for painting or polishing is one of the most demanding abrasive tasks in the automotive and furniture industries. The abrasive products required for this process have to adapt extremely well to the contours of the workpiece and be highly versatile – while their quality must be of the highest order.

The **FineNet FN 915** foam-laminated and velour-backed abrasives especially developed by Hermes not only easily meets these requirements, but are also highly economical.

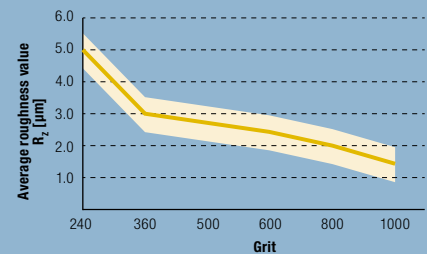
The benefits for you:

- Abrasive adapts perfectly to contours and very tight radii
- Minimal loading and the potential to clean the used abrasive results in extended tool life
- Generates very fine surfaces with consistent surface roughness
- Dust-free sanding with minimal rework on surfaces
- Extremely versatile – wet (foam layer “stores” water and allows a finely-metered supply of water for rinsing off and binding sanding residues) and dry (dust can be extracted through the sanding disc) on random orbital sanders or with hand sanding
- Pressure-equalizing foam layer facilitates “gentle” sanding and reduces the risk of sanding through surface coatings
- Strong bond between the foam layer and the velour backing allows multiple abrasive changes

PRODUCT CONSTRUCTION



EXAMPLE OF ACHIEVABLE SURFACE ROUGHNESS*



Disc

FineNet FN 915 VEL, Ø 6"

Sanding process

Machine sanding (dry)
with Festool random orbital sander, orbit 13/64"
Backing pad: medium
Sanding pressure: 20 N constant
Material: plexiglass

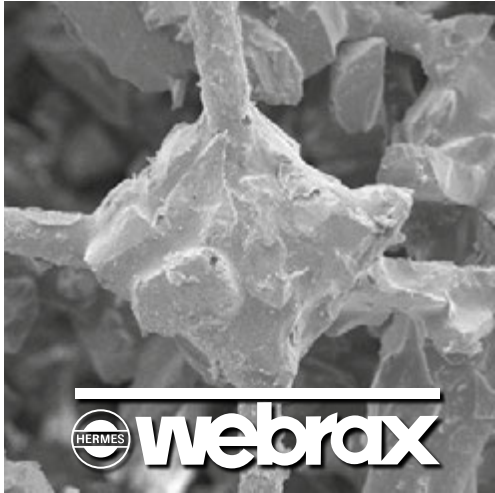
* The type and hardness of the material to be sanded, the backing pads and the sanding process will lead to different values for surface roughness.

GRIT COMPARISON

Conventional abrasives	Hermes FineNet	Main competitor product	Hermes Sanding sponges	Competitive Sanding sponges
180	-	180	100	medium
220	240			
240		180/360	180	fine
280				
320		360	220	extra fine
360	240/360			
400	360	500	280	super fine
500	500			
600	500/600	500/600	400	ultra fine
800	600/800			
1000	800/1000	1000		
1200	1000			
1500		1000/2000		
2000				

Differing product designs make direct grit size comparisons impossible.

3 benefits of webrax non-woven web



The magnified photograph clearly shows the open structure of **webrax** non-woven web.

1. Backing

Our non-woven web is manufactured from a special fiber web. During this process, the abrasive grit is firmly anchored by a bond and is correspondingly durable.

The following designs are available:

- Non-woven web
- Non-woven web, on X_W -cloth
- Non-woven web, high-density
- Non-woven web, reinforced with cloth
- Non-woven web, reinforced with cloth on vulcanized fiber

2. Types of grain

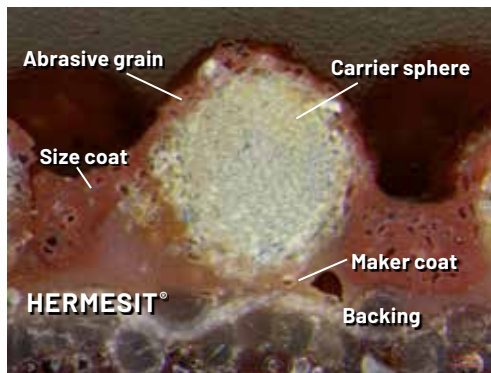
Available in grit range 80 to 1500 we use the following types of grain: Aluminum oxide (Al_2O_3) and Silicon carbide (SiC).

Warning: Information on grit sizes is not comparable with that relating to abrasive papers.

3. Bonding

The resin bond allows the product to be used under both dry and wet conditions. A benefit you will appreciate.

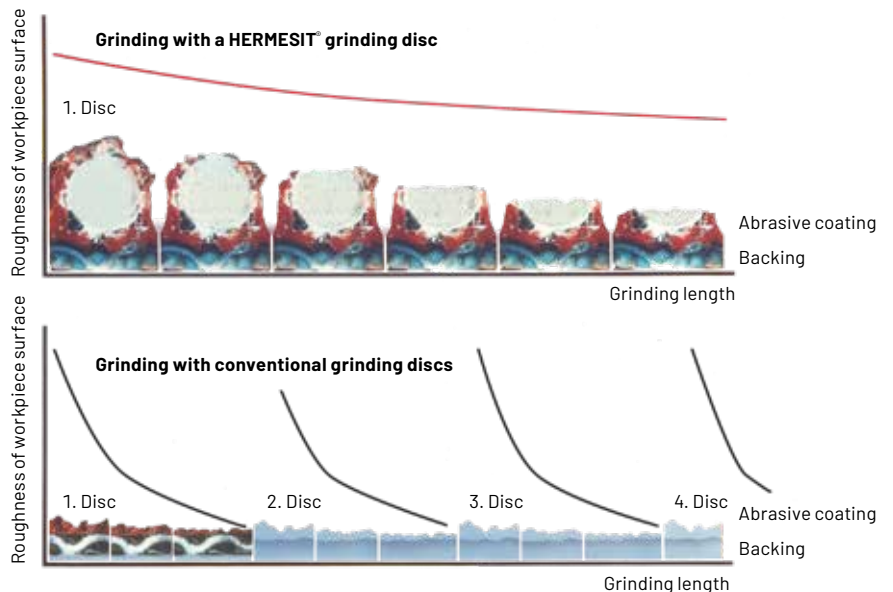
The HERMESIT[®] principle



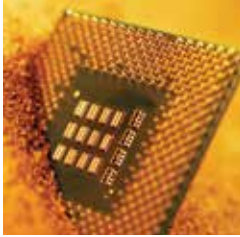
Hermes HERMESIT[®] long-life abrasives have special carrier spheres coated with abrasive grain. As this grain breaks down evenly during grinding, so it simultaneously keeps exposing fresh abrasive grain.

The benefits for you

- Increased efficiency and productivity in comparison to conventional grinding belts/discs due to 3 to 5 times longer tool life (reduced stoppages for belt replacement and machine downtimes and saving costs on the disposal of used belts)
- High process stability due to constant roughness values and stock removal rates throughout the entire period of use
- Universally applicable – can be used wet and dry (resistant to water, emulsion and oil)



Intelligence inside – Hermes CBNⁱ vitrified bonded abrasives



Hermes CBNⁱ vitrified bonded abrasives are equipped with an RFID (Radio Frequency Identification) chip in the core body. These chips enable the machine and the tool to communicate with one another and transmit important data to make your grinding process more reliable and more efficient.

The benefits for you

- Compliance with safety issues such as calibration of max. v_c , for example
- Identification of the abrasive tool (tool and order no. or similar)
- Optimization of grinding parameters such as the specification of dressing parameters for better tool life and an optimized grinding process, for example, or statement of actual dimensions to reduce process setup times
- Documentation of process history in the event of tool change or for evaluation purposes



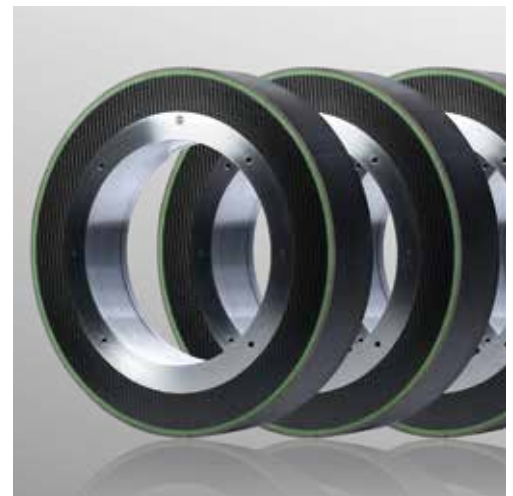
Lightweight – CBN grinding wheels with CFRP* core bodies

Another highlight of Hermes product and material research in bonded abrasives are CBN grinding wheels with a CFRP* core body. For certain grinding processes, this leads to significant improvements which are much appreciated by Hermes customers.

The benefits for you

- Significantly less weight means better handling (a key benefit in grinding processes such as centerless infeed grinding)
- The vibration-damping effect can increase performance and reduce grinding times

* CFRP = Carbon Fiber-Reinforced Polymer



Hermes CBN grinding wheels with CFRP* core bodies



SEAM THE SUSTAINABILITY INITIATIVE

At Hermes, the topics of environmental protection and corporate responsibility have always shaped business policy. Today, we consider them more important than ever. This is why Hermes is a founding member of SEAM (Sustainable European Abrasive Manufacturers), the sustainability project of the European Abrasives Association. Within this framework, Hermes is continuously developing its sustainability standards in the three core areas of environment, society and economy. Further information on SEAM is available at www.seam.earth.



H.A.I. THE OPTIMIZATION INITIATIVE

Within the framework of the Hermes Abrasives Institute, we offer you optimization programmes that provide a customer-oriented combination of consulting services and individual training content.

This ranges from abrasives manuals, grinding process optimization and lean consulting to individual training so that theory becomes excellent practice.



HERMES **YOUR PARTNER AND EXPERT FOR EXCELLENT SURFACES**

WHO WE ARE

The aesthetic and functional finish of surfaces is our strength. That is why we are the first point of contact for a large number of users from a wide range of industries. Founded in Hamburg, Germany, we have grown out into the world. With our comprehensive portfolio of coated abrasives and precision bonded abrasives, we have been one of the world's leading manufacturers since 1927.

THE PERFECT SOLUTION FOR THEM – WHAT DRIVES US

At Hermes, we work with passion on tailor-made solutions that perfectly match your individual requirements. We are constantly expanding our in-depth knowledge of your processes, applications and associated challenges, because we want to be more than just your service provider: we want to be your partner.

SERVICE - WHAT CHARACTERIZES US

Wherever and whenever you need our support, we are there for you – internationally, with local contacts at our many locations. For our speed and flexibility we are appreciated by our customers all over the world.

TALK TO US

Optimization potential can even be found in processes that seem to run optimally. Let us work together to find out how we can get more out of it for you. You will find your contact person in the "Contact finder" section on [hermesabrasives.com](https://www.hermesabrasives.com)



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www.abrasivessafety.com