

About Mirka

MIRKA LTD is a family-owned Finnish company and a world leader in abrasives technology innovation. We are offering a complete range of technically superior, high quality abrasives, innovatively designed tools, complete sanding systems and supplementary products. This total innovative solution delivers real benefits to customers in terms of speed, first-class efficiency, surface finish quality and cost effectiveness, even when tackling the most demanding applications.

Mirka is the first company in its sector to obtain the three most important quality standards. The production process guarantees reliable quality by following the ISO 9001 quality assurance system. The OHSAS 18001 occupational health and safety management system ensures a high level of work safety. The ISO 14001 environmental management system proves that we consider the environment in all our activities.

95 percent of our products are exported and sold across the globe through our subsidiaries and importers.

Read more: www.mirka.com



Corporate Responsibility

CONTINUOUS IMPROVEMENT TOWARDS

SUSTAINABILITY. Changing conditions inspire us to improve and grow our business. We see that our customers are as interested in sustainability as we are. This is why our product development is focused on innovating the best sustainable products and systems, while continually improving our own environmental performance.

Our business is focused on providing the best surface finishing preparation tools and systems to customers. To be the most sustainable finishing systems provider, we are digging deep down to the core of our company to figure out what it really means to be sustainable. We have accomplished a great deal already and have many more

initiatives we will take on in the future.

For people working at Mirka, it has always been clear to not waste financial or material resources – of our own or those of our customers. We find it is equally clear to preserve the planet's resources. Sustainability is a natural extension of this approach. It means taking the economy, the earth, and people into consideration when we make business decisions – now and for future generations.

We are continuously looking for opportunities to reduce our environmental footprint – this aligns with our company values and also cuts costs. We have worked hard to conserve energy and raw materials, reduce waste, increase recycling, and

decrease the use of persistent chemicals. We are developing healthier, safer, and more efficient products and processes so that our customers and employees will benefit. For example, our dust-free sanding systems help protect the lungs of workers while giving a cleaner and better surface finish.



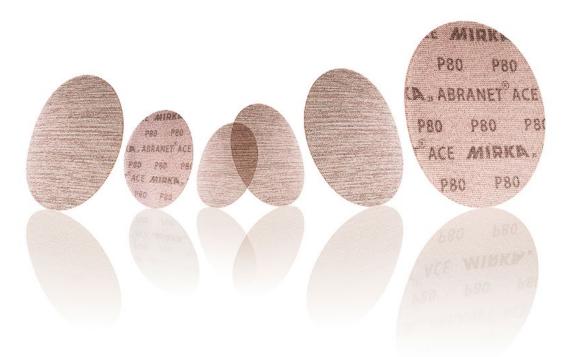


CONTENTS

NET SANDING PRODUCTS	4
MIRKA BODY IN WHITE	5
Mirka Body in White – Steel	6
Mirka Body in White – Aluminium	7
Mirka Body in White – Tools	8
E-COAT AND PRIMER	10
E-Coat	11
Primer	13
E-Coat and Primer Tools	14
FINESSING	15
Abrasives and Sanding Tools	16
Polishing Compounds, Pads and Tools	17
Finessing System Example	18
PRODUCT OVERVIEW	
PRODUCT OVERVIEW	20
Abrasives	
Sanding Tools/Machine Sanding	
Sanding Tools/Hand Sanding	25
Polishing Compounds	26
Polishing Pads	26
Polishing Tools	27
POWERTRAIN COMPONENTS	28

provides overall solutions for the industry. We work closely with our customers to develop innovative and advanced solutions. We are developing healthier, safer and more efficient products and processes from which our customers will benefit.

The dust-free sanding concept developed by Mirka offers many advantages, i.e. makes the processes faster, more efficient and cost-effective.



NET SANDING PRODUCTS

MIRKA'S INNOVATIVE net sanding concept is unlike any other. The construction consists of a dense network of polyamide fabric threads onto which the abrasive grit is bonded. This open weave, net structure means that no dust particle is more than 0,5 mm from a dust extraction hole. The result is phenomenal dust extraction across the entire abrasive surface and virtually dust-free sanding.

Tests have shown that net sanding produce a miniscule amount of dust compared to conventional dry sanding technology with extraction. The Mirka net products are so efficient at removing potentially dangerous sanding dust that minimize dust contamination in the workplace and create far healthier environment.

It was a five-year process to bring this revolutionary technology to the market and it took almost ten years to gain buy-in to the market. Our net abrasives have won many product innovation awards and been a best seller across the globe.

Mirka has also developed a net product which is suitable for the preparation of corrosion sensitive surfaces. Aluminium based material and the demand from AOEMs for sanding corrosive sensitive materials are increasing. Special raw materials containing the lowest possible amounts of heavy metal contaminants have been used when producing Abranet NC and other abrasives belonging to the noncorrosion product range.



MIRKA BODY IN WHITE

The range of products in the body in white process is today much wider than earlier. New materials, such as aluminium, carbon-fibre-reinforced plastics, composites and other types of plastics, are used together with traditional steel. This means that the abrasive range also has to be wider and suitable for these different substrates.

Mirka offers a wide range of abrasives suitable for all the above-mentioned materials.



MIRKA BODY IN WHITE STEEL



ROTARY SANDING

Notary sanding requires a tougher backing to resist tearing.

ABRASIVE RECOMMENDATIONS

P80-P120





Abranet® HD

Coarse Cut



Fiber A



RANDOM ORBITAL SANDING

Named and a sanding requires a more flexible backing to make the surface smoother prior to E-coat.

ABRASIVE RECOMMENDATIONS

P120 - P150





Abranet® Ace

Q.Silver® Ace



Coarse Cut

MIRKA BODY IN WHITE ALUMINIUM





RANDOM ORBITAL SANDING

Aluminium sanding requires finer sanding compared to steel sanding. With Abranet NC or Gold NC you are able to remove the defect quickly in the first step.

With Mirlon NC you key out the sanding marks from the first step in order to achieve an optimal surface before E-coat.

ABRASIVE RECOMMENDATIONS

P150-P240





Abranet® NC

Gold NC

ABRASIVE RECOMMENDATIONS

Very Fine - 360



Mirlon® NC

MIRKA NON-CORROSION ABRASIVES

The preparation of corrosion sensitive surfaces, such as aluminium, requires products which contain the lowest possible amount of heavy metals to avoid contamination.

Contamination can cause corrosion. Mirka is one of the first abrasive producers providing a full range of non-corrosion products, from net to paper based and non-woven discs and sheets.



Mirlon® NC – Very Fine–360rolls, discs and sheets



Abranet® NC – P80–P600discs and sheets

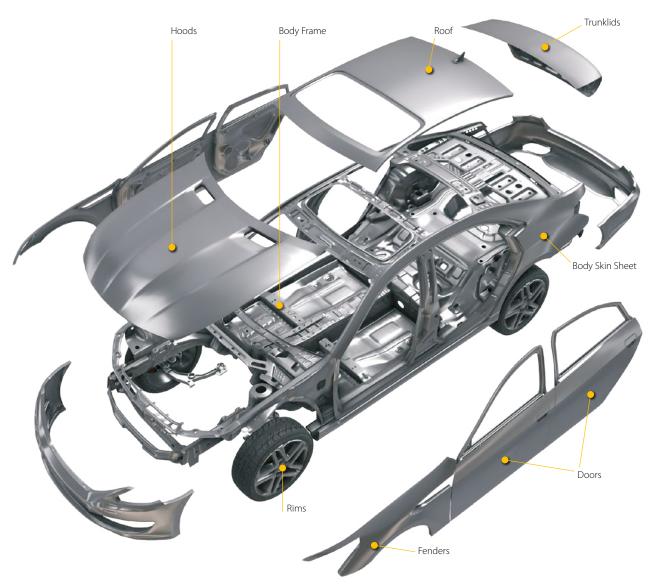


Abralon® (Standard) – All Gritsdiscs and sheets



Gold NC – P80–P500discs

ALUMINIUM AUTOMOTIVE APPLICATIONS TODAY



WHY NC PRODUCTS? Traditional abrasive products contain significant amounts of heavy metals, such as iron, chromium and copper. During the sanding operation, impurities can contaminate the aluminium surface. Scratches or defects in the paint or oxide layer (eloxated aluminium), which occur after the finishing process, can trigger the corrosion process. Parts of the car body, such as bonnets and fender edges, which are exposed to stone chipping and other damages, are also at risk.

WHAT IS THE DIFFERENCE? Special raw materials containing the lowest possible amounts of heavy metal contaminants have been used in the NC product range. Special procedures are applied throughout the production process to reduce the metal contents and ensure a stable quality. Due to the construction, the NC products show significant lower heavy metal contents than the corresponding traditional products.

THE EVIDENCE OF HEAVY METALS IN NON-CORROSION ABRASIVES

Products	Fe	Cr	Cu	Zn	Ni
Mirlon® NC Very Fine – 360	62	5.3	<4	1.3	<4
Competitive non-woven abrasive	1,190	26	6	14	6
Abranet® NC P180	70	4.1	2.2	2.1	<3
Competitive paper abrasive	490	5.9	5.5	5.7	-
Abralon® 360	6.7	3.1	<3	1.6	5
Competitive foam abrasive	97	19	6.7	2.6	-
Gold NC P150	42.3	1.08	1.16	2.6	< 0.5
Competitive paper abrasive	3,600	3.3	8.2	18	1.2

AOEM heavy metal content requirement in abrasive products $\,$ <100 ppm $\,$ <5 ppm $\,$ <5 ppm $\,$ <5 ppm $\,$ <5 ppm $\,$

MIRKA BODY IN WHITE TOOLS



MIRKA POWER TOOLS

TOOLS RECOMMENDATIONS



Mirka® DEROS

Mirka® DEROS: Powerful, silent and ergonomic electric sander for steel random orbital sanding applications.



Mirka® AOS

Mirka® AOS: Small orbital sander for sanding with quicklock discs and removing small defects in steel and aluminium.



Mirka® PROS

Mirka® PROS: Strong and ergonomic pneumatic sander for steel and aluminium random orbital sanding applications.



Mirka® ROS2: Powerful and efficient two-handed sander for steel and aluminium random orbital sanding applications where a fast cut is needed.

Mirka® ROS2

E-COAT AND PRIMER

Electro-coating provides rust protection and is the only fully covering layer.

The primer hides the defects, so this layer is only applied to the visible surfaces.

For these processes Mirka offers a wide range of abrasives, tools and accessories. Mirka's unique dust-free solution, consisting of net abrasives together with Mirka tools, is a superior choice.



E-COAT – SCUFFING (DRY)



Mirka scuffing pad with Abranet Products P500–P600 for finding and highlighting defects in E-coat.

ABRASIVE RECOMMENDATIONS

P500-P600



Abranet[®]

E-COAT – DEFECT SANDING, SMALL DEFECTS (DAMP OR DRY)



The ergonomic hand sanding pad with Abranet products P320–P500.



Goldflex Soft or WPF P320–P500.

ABRASIVE RECOMMENDATIONS

P320 - P500



Abranet®



Polarstar®

ABRASIVE RECOMMENDATIONS

P320 - P500



Goldflex Soft



WPF

E-COAT – DEFECT SANDING LARGE DEFECTS (DRY)



Mirka® AOS 130NV with Polarstar P400. Sanding in hard-to-reach areas.



Mirka® DEROS or Mirka® PROS with Abranet products or Q.Silver Ace P320–P400. Sanding on larger areas.

ABRASIVE RECOMMENDATIONS

P400





Polarstar®

ABRASIVE RECOMMENDATIONS

P320 - P400





Abranet[®]

Q.Silver® Ace



PRIMER-HAND SANDING, SMALL DEFECTS (DAMP OR DRY)



The ergonomic hand sanding pad with Abranet Ace P600–P1000.



Abralon or Goldflex Soft P600–P1000 for profiles and hard-to-reach areas.

ABRASIVE RECOMMENDATIONS

P600-P1000







Polarstar®

ABRASIVE RECOMMENDATIONS

P600-P1000







Goldflex Soft



Abranet Soft P800-P1000 with small hand sanding block.

ABRASIVE RECOMMENDATIONS

P800 – P1000



Abranet® Soft

PRIMER – MACHINE SANDING, LARGER DEFECTS AND AREAS (DRY)



Abranet Ace / Q.Silver Ace P400–P800 with Mirka® DEROS or Mirka® PROS sander.

ABRASIVE RECOMMENDATIONS

P400-P800





Abranet® Ace

Q.Silver® Ace

E-COAT AND PRIMER TOOLS

MACHINE SANDING



Mirka® DEROS



Mirka® PROS



Mirka® AROS-B 150NV



Mirka® AOS



Mirka® Dust Extractor 1230

HAND SANDING



Sanding Pad



Sanding Block Ergo



Hand Tool for Roses 30 mm



Sanding Pad Half Round

A dust-free solution

By using the Mirka dust extraction system together with Abranet products you achieve a dust-free solution. This minimises the re-work after painting which saves you both time and money.

FINESSING

The finessing process is very demanding and requires much precision. The requirements for the products used in the finessing process are very high.

Mirka offers a simple and fast system that functions safely and results in a high-quality surface finish.



FINESSING – ABRASIVES AND SANDING TOOLS



Polarstar SR gives a high-quality finish enabling a fast polishing process. Mirka recommends the use of damp sanding with the orbital sander or random orbital sander.



Waterproof finessing discs enable a fast cut and a reliable finish. The product can be used wet or dry with an orbital sander or a random orbital sander.

ABRASIVE AND SANDING TOOL RECOMMENDATIONS

ABRASIVES

P2000 - P5000



Polarstar® SR



WPF

Polarstar® SR

SR7 = P2500

SR5 = P3000

SR3 = P5000

SANDING TOOLS & ACCESSORIES



Mirka® AOS 130NV



Mirka® ROS 150NV



Mirka® AOS-B 130NV



Mirka® AROS-B 150NV



>> Hand Tool for Roses 30 mm



>> Finessing Damper 60 ml



Micro Fiber Cleaning Cloth

FINESSING - POLISHING COMPOUNDS, PADS AND TOOLS





With the wide range of Mirka products we are able to offer a solution that works for both one-step and two-step processes for most clear coat and top coat systems.

POLISHING COMPOUND, PAD AND TOOL RECOMMENDATIONS

POLISHING COMPOUNDS





Polarshine® 12

Polarshine® 10 Polarshine® 5

POLISHING TOOLS



Mirka® ROP2 312NV 77 mm

Mirka® RP2 300NV 77 mm

Mirka® RP 300NV 77 mm

POLISHING PADS



Lambswool Pad Pro Grip



Polishing Foam Pad Yellow Waffle



Polishing Foam Pad White Flat Ret.



Polishing Foam Pad Orange Waffle



Polishing Foam Pad **Burgundy Waffle**



Polishing Foam Pad Black Waffle

FINESSING SYSTEM **EXAMPLE**

FINESSING – ABRASIVES AND SANDING TOOLS







Add water to the surface with Mirka damper.



Sand with Polarstar SR5 or WPF P2500.

TOOLS



Mirka® AOS-B 130NV or Mirka® AROS-B 150NV

ABRASIVE AND LIQUID



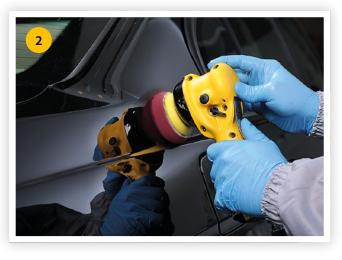




Polarstar® SR5 or WPF P2500; Liquid in damper: Water

FINESSING – POLISHING COMPOUNDS, PADS AND TOOLS







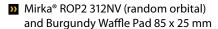
Apply 1–2 drops of Polarshine 12 compound to the surface.



Use Mirka Burgundy Waffle Foam Pad with the Mirka random orbital polisher for a one-step polishing process.

TOOLS





COMPOUND





Polarshine® 12



PRODUCT OVERVIEW



ABRASIVES

Abranet® HD

Abranet HD features exceptional resistance to edge wear and clogging which means it retains its highly efficient sanding properties for far longer, especially in demanding situations.



Grit range: P40, P60, P80, P120-P180

Coarse Cut

 Coarse Cut features a Progressive Bond™ technology, which makes Coarse Cut ideal for rounded surfaces with excellent edge wear resistance.

Grit range: P36-P40, P60-P150



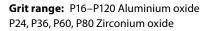
Fiber A

Fiber A discs have the durability and flexibility needed for sanding difficult surfaces. For example, they feature firm dust binding properties which are essential when removing lacquer and rust or when sanding down welding seams.

......

.....

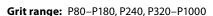
.....





Abranet®

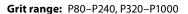
The original, multifunctional net sanding material, Abranet combines high performance and a longer lifespan than traditional abrasives, making it a cost-effective solution. Designed for dry sanding by machine or by hand, its true dust-free sanding characteristics result in a cleaner work environment, as well as a better surface finish.



Abranet® Ace

Abranet Ace offers superior cut and performance on E-coat and primer sanding applications, ensuring optimal performance and life time.

Designed for wet and dry sanding. The true dust-free sanding characteristics result in a cleaner work environment resulting in less rework.



O.Silver® Ace

Q.Silver Ace is a new ceramic abrasive product with paper backing. The ceramic grains give a boost, especially when sanding harder applications.

Grit range: P80-P800



Abranet® NC

Net product especially developed for aluminium applications. Abranet NC has a low level of less noble metals to minimize the risk of corrosion on aluminium parts. The same dust-free characteristics as Abranet Ace also apply to Abranet NC.

......



Grit range: P80-P600

Gold NC

Paper-backed product especially developed for aluminium applications. Gold NC has a low level of less noble metals to minimize the risk of corrosion on aluminium parts.

Grit range: P80-P600



Mirlon® NC Very Fine

Mirlon NC is a flexible, threedimensional fibre sanding material that's easy to use on profiled surfaces and produces an excellent finish. Mirlon NC has a low level of less noble metals to minimize the risk of corrosion on aluminium parts.

Grit range: Very Fine – 360



Goldflex Soft

☑ Goldflex Soft is suitable for sanding profiled surfaces and complex, hard-to-reach areas by hand. The stearate coating prevents clogging. Suitable for dry sanding applications.

Grit range: P150-P320, P400-P1000



Abranet® Soft

Abranet Soft is suitable for hand sanding of E-coat and primer surfaces when an optimum combination of cut and flexibility is needed. The net structure also prevents clogging. Recommended for wet sanding.



Grit range: P320, P500, P800, P1000

Abralon®

Abralon's patented, flexible construction allows it to create a smooth sanding pattern on angled surfaces and edges while minimizing the risk of sanding through the paint layer.

Abralon's knitted construction allows water and air to pass freely, making it suitable for both dry and wet sanding, by machine or by hand.

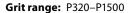


Grit range: 180, 360, 500, 600, 1000, 2000,

3000, 4000

Polarstar®

Polarstar is our film alternative for E-coat and primer applications. Polarstar is suitable for wet and dry sanding, by hand or by machine.





WPF

Mirka waterproof abrasive is most suitable for wet or dry hand sanding applications in the paint shop. Mirka WPF features a latex-impregnated paper backing material and extra durable coating which helps to produce a high-quality finish, even on coarser surfaces.





Grit range: P80-P2500

Polarstar® SR

Polarstar SR sanding film is developed for correction of small painting defects and removing of dust particles in top coats and clear coats. This product is designed for wet sanding, and is suitable for both machine and hand sanding.



Grit range: 3 micron, 5 micron, 7 micron

Abrasive range



For the complete abrasive range please visit **www.mirka.com**





Mirka® DEROS

Model	Mirka® DEROS 650CV	Mirka® DEROS 625 CV	Mirka® DEROS 550CV
Size	150 mm (6")	150 mm (6")	125 mm (5")
Power input	350 W	350 W	350 W
Voltage mains supply	220 – 240 V	220 – 240 V	220 – 240 V
Speed	4,000 – 10,000 rpm	4,000 – 10,000 rpm	4,000 – 10,000 rpm
Orbit	5.0 mm	2.5 mm	5.0 mm
Vibration level	3.4 m/s ²	2.4 m/s ²	3.2 m/s ²
Noise level (LpA)	71 dB(A)	72 dB(A)	71 dB(A)
Weight	1.0 kg	1.0 kg	1.0 kg



Mirka® PROS

Model	Mirka® PROS 650CV	Mirka® PROS 625 CV	Mirka® PROS 550CV
Size	150 mm (6")	150 mm (6")	125 mm (5")
Air consumption	485 l/min	485 l/min	485 l/min
Working pressure	6.2 bar	6.2 bar	6.2 bar
Speed	12,000 rpm	12,000 rpm	12,000 rpm
Orbit	5.0 mm	2.5 mm	5.0 mm
Vibration level	3.2 m/s ²	2.3 m/s ²	2.4 m/s ²
Noise level	75 dB(A)	73 dB(A)	74 dB(A)
Weight	0.93 kg	0.90 kg	0.89 kg
Weight	0.93 kg	0.90 kg	0.89 kg



Model	Mirka® ROS2 610CV
Size	150 mm (6")
Air consumption	594 l/min
Working pressure	6.2 bar
Power	343 W
Speed	12,000 rpm
Orbit	10.0 mm
Vibration level	3.4 m/s ²
Noise level	81 dB(A)
Weight	1.2 kg

MACHINE SANDING



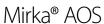


Mirka® AOS-B Mirka® AROS-B 130NV

150NV

Model	Mirka® AOS-B 130NV	Mirka® AROS-B 150NV
Size	32 mm (1 1/4")	32 mm (1 1/4")
Battery Voltage	10.8 VDC	10.8 VDC
Speed	4,000-8,000 rpm	4,000-8,000 rpm
Orbit	3.0 mm	5.0 mm
Noise Level (LpA)	61 dB(A)	62 dB(A)
Vibration level	2.54 m/s ²	1.9 m/s ²
Weight	0.57 kg	0.56 kg







Mirka® ROS 150NV

Model	Mirka® AOS 130NV	Mirka® ROS 150NV
Size	32 mm (1 1/4")	32 mm (1 1/4")
Air consumption	509 l/min	425 l/min
Working pressure	6.2 bar	6.2 bar
Power	357 W	112 W
Speed	8,500 rpm	12,000 rpm
Orbit	3.0 mm	5.0 mm
Vibration level	2.2 m/s ²	2.3 m/s ²
Noise level	75 dB(A)	71 dB(A)
Weight	0.60 kg	0.49 kg



DUST EXTRACTION



Mirka® Dust Extractor 1230

This highly versatile dust extractor for professional use is equipped with an automatic electric start, adjustable suction and an earthed hose connection to eliminate static electricity in the hose. This dust extractor should always be used with Mirka antistatic hoses. The AutoFilterCleaning system (available on some models) automatically cleans the filter effectively while the dust extractor is running.

Please note that this model is not approved for aluminium sanding.

Tool range



For the complete tool range please visit

www.mirka.com



HAND SANDING

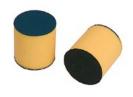
Sanding Pad

Developed for ergonomic scuffing on E-coat and primer. The adjustable strap makes it non-operator-dependent. Available as 125 mm, 150 mm and 115x140 mm. Pad thickness available only in 6 mm.



Hand Tool for Roses 30 mm

Suitable mostly for wet hand sanding of small defects on clear coat applications. The 30 mm block can be used with both PSA and grip discs.



Sanding Block Ergo

Dused for wet hand sanding on E-coat and primer. The ergonomic design makes the sanding block comfortable to use. Available in 50 mm and 77 mm.



Sanding Pad Half Round

The half round pad is designed for sanding hard-to-reach areas. Available as 125 mm and 150 mm grip.



POLISHING

POLISHING COMPOUNDS

Polarshine® 12

Mirka's new Polarshine 12 is a water-based and silicone-free one-step polishing compound. Polarshine 12 removes scratches from P2500 or finer (depending on the surface and polishing pad) and it has a perfect balance of haze and hologram removal versus speed of cut.



Polarshine® 5



Polarshine® 10

Polarshine 10 is a medium-coarse allround polishing compound for clear coats and topcoats. Polarshine 10 is suitable for all paint systems and removes scratches from P3000 and finer. Polarshine 10 is silicone-free and waterborne.



Polarshine 5 is a fine second-step polishing compound suitable for hologram removal on darker colors. Polarshine 5 is silicone-free and waterborne.

.....



Polishing Foam Pad White Flat Ret.

Mirka white foam pad is designed to provide a good cut and gloss on hard clear coat applications and is mainly intended for use with the Mirka® ROP2 312NV polisher.





Polishing Foam Pad Yellow Waffle

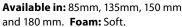
The Mirka yellow waffle pad is suitable for all kinds of polishing processes because it provides an optimal cut and gloss balance.



Available in: 85 mm, 135 mm, 150 mm and 180 mm. Foam: Medium hard.

Polishing Foam Pad Orange Waffle

Mirka orange waffle pad is suitable for softer clear coats and paints to achieve a perfect finish in a one-step process for vehicle and Tier 1 applications. The orange foam is softer than our yellow foam and leaves the best gloss and least holograms.





Polishing Foam Pad Black Waffle

Mirka black waffle foam pad is suitable as the second step in the two step polishing process for hologram removal.



Available in: 85 mm and 150 mm. Foam: Very Soft.

Polishing Foam Pad Burgundy Waffle

Mirka burgundy waffle pad is suitable for hard and medium hard coatings withing AOEM and Tier1, providing a fast cut with good gloss. The burgundy foam is stronger than our yellow waffle foam providing a stable polishing process.



Available in: 85 mm **Foam:** Medium hard.

Lambswool Pad Pro Grip

Mirka lambswool pad pro is fully natural and made of premium wool fibers. The fibres are optimized to maintain high performance for demanding use. The pad is suitable for polishing all kinds of paintworks in OEM applications where a fast cut is needed.



Available in: 80 mm, 135 mm, 150 mm and 180 mm.

POLISHING TOOLS



Mirka® ROP2 312NV 77 mm

Model	Mirka® ROP2 312NV
Size	77 mm (3")
Air consumption	538 l/min
Working pressure	6.2 bar
Power	276 W
Speed	10,000 rpm
Orbit	12.0 mm
Vibration level	5.9 m/s ²
Noise level	80 dB(A)
Weight	1.1 kg



Mirka® RP2 300NV 77 mm

Model	Mirka® RP2 300NV
Size	77 m (3")
Air consumption	481 l/min
Working pressure	6.2 bar
Power	209 W
Speed	3,000 rpm
Vibration level	1.2 m/s ²
Noise level	85 dB(A)
Weight	0.96 kg



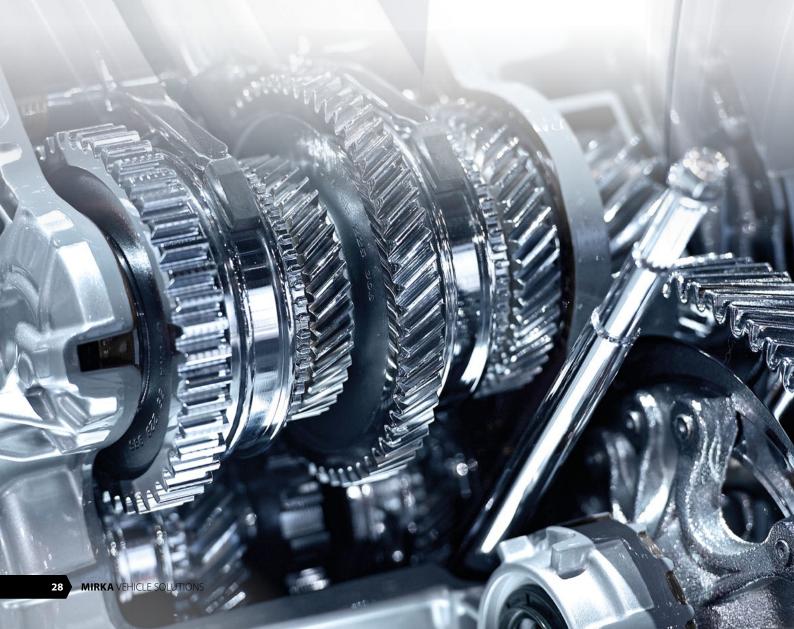
Mirka® RP 300NV 77 mm

Model	Mirka® RP 300NV
Size	77 mm (3")
Air consumption	481 l/min
Working pressure	6.2 bar
Power	209 W
Speed	3,000 rpm
Vibration level	1.4 m/s ²
Noise level	81 dB(A)
Weight	0.55 kg

POWERTRAIN COMPONENTS

Mirka's microfinishing solutions are used for cylindrical parts that require minimum tolerances in many engine applications, mainly for the automotive industry. High-performance car manufacturers require extremely reliable processes from engine part producers. The long-term durability of crankshafts and camshafts must be reproducible and performance must be guaranteed in order to pass the requirements of manufacturers and end users. The right microfinishing technologies minimise wear and prolong the service lifetime of demanding engine parts.

The optimised engine part finishing process ensures the desired performance of engines.



Stabilize the quality of precision components in the powertrain industry

A consistent, high-quality finish provides a competitive advantage in the form of longer engine lifetime and more satisfied end customers. Additional value is created through the improved process and increased productivity

- Consistent engine part quality and performance
- Cost-effective production process
- Reputational value of technology leadership
- Uniform and reproducible surface structures



PRODUCT RANGE



MI232C

Tross pattern (patented) film product designed for the surface finishing of automotive powertrain components.

Due to the patented surface construction (tessellated) it is more aggressive and resist to surface loading creating a faster total finishing process.

Recommended for rough polishing. Available on a 5 MIL new anti-slip backing. Semi-open grain distribution.



MI231C

Microfinishing film product designed for surface finishing of automotive powertrain components. Available on 5 MIL anti-slip backing. The grain distribution is semi-open and the product is more aggressive than normal Aluminum oxide films. Recommended for rough polishing.



MI231A

Microfinishing film product designed for surface finishing of automotive powertrain components. Two thicknesses of anti-slip backing film materials available, 3 MIL or 5 MIL. MI231 has a semi-open grain distribution and resists surface loading. Recommended for fine polishing.

Mirka's unique and patented production technology gives valuable benefits to our industry partners



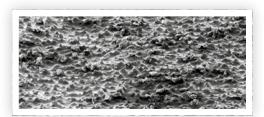
Mirka co-operates closely with leading machine producers and suppliers. Mirka is a trusted industry partner that develops and delivers unique and innovative solutions to meet future needs in engine part finishing.

This patented technology provides opportunities to develop suitable materials for special industry needs and customer wishes.

- Our unique, environmentally friendly hardening and flexo techniques give our products many valuable properties:
- Grain and glue distribution is very even and accurate, which guarantees the promised finishing results
- Thanks to our technology you do not need to worry about grain build-up or unevenness of the material
- Our technology delivers more flexibility and enables us to tailor our products and respond quickly to changing customer and market needs

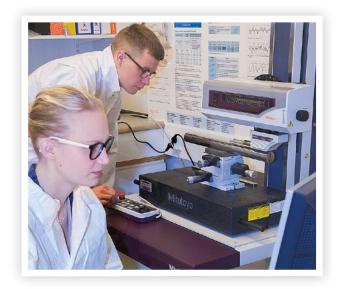


Mirka Alox 30µ



Competitor 30µ

OPTIMAL SURFACE TEXTURING

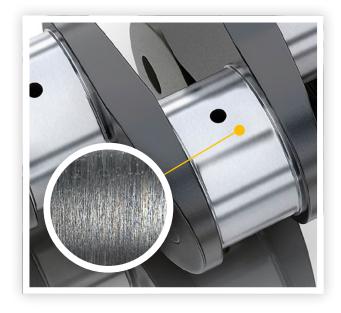


Tolerances in engine manufacturing are extremely tight, and crankshafts and camshaft surface properties are no exceptions.

Engines need to create less noise, vibration and friction, and should be long-lasting and maintenance-free. They also need to use less fuel and oil, and produce lower emissions. This in turn places higher demands on surface finish.

Mirka's unique production technology allows our customers to create basically any kind of surface texturing to improve oil lubrication and friction properties.

METALLOGRAPHIC INSPECTION OF CRANKSHAFT JOURNALS



- Surface texturing can have a serious impact on engine performance. Identifying and creating the optimal surface pattern can give benefits in the fight to meet stricter environmental regulations and lower fuel consumption.
- Energy losses mainly occur in engines, largely as a result of friction. To avoid high frictional losses it is crucial to continuously improve surface texturing.



Uneven and coarse



+ wild scratches



Preferred even surface





MIRKA LTD

Finland

Brazil Mirka Brasil Ltda. Canada Mirka Canada Inc. China Mirka Trading Shanghai Co., Ltd Finland & Baltics Mirka Ltd France Mirka France Sarl **Germany** Mirka GmbH India Mirka India Pvt Ltd Italy Mirka Italia s.r.l. Mexico Mirka Mexicana S.A. Of C.V Russia Mirka Rus LLC **Singapore** Mirka Asia Pacific Pte Ltd

Spain KWH Mirka Ibérica S.A.U. Sweden Mirka Scandinavia AB **Turkey** Mirka Turkey Zımpara Ltd Şirketi United Kingdom Mirka (UK) Ltd United Arab Emirates Mirka Middle East FZCO

USA Mirka USA Inc.

For contact information, please visit www.mirka.com Quality from start to finish

© Mirka Ltd • 200268 • PP022017FG