OTEC
PRÄZISIONSFINISH

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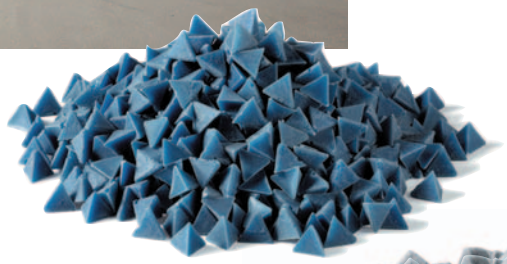
Media

Perfect surfaces. World-wide.

Media



For optimal finishing, the selection of the correct finishing machine, grinding media and compounds are of the utmost importance.

Numerous parameters can influence results. Expert consultations are recommended as each project is different.

The most important parameters are:

- **Quality, form and size of the grinding media**
- **Design, volume and construction of Disc-Finishing and Drag-Finishing machines**
- **Design, material and the weight of the work pieces**
- **Possibility of separation**
- **Grinding and polishing requirements**

Grinding media can be divided into two main groups.

Ceramic Chips

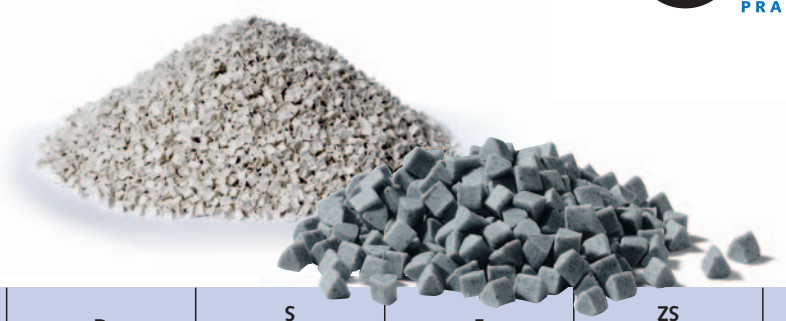
This abrasive is bound in ceramic.

- Characteristics: High density, hard basic material.
- Field of application: Mainly rough grinding steel alloys.

Plastic Chips

This abrasive is bound in polyester resin.

- Characteristics: Low density, soft basic material.
- Field of application: Mainly grinding and fine grinding non-ferrous metals.



Ceramic Chips

Quality	Grinding Effect	D Triangle Size a/b	S Triangle (cut on an angle) Size a/b	E Ellipse Size a/b/c	ZS Cylinder** (cut on an angle) Size a/b	DZ Tri-Star Size a/b
P	Polishing	3/3 6/6	4/4	–	1/3 2/2 2/5 2/10 3/5 3/10 4/10 4/13 5/10 7/15	3/3 SK* 4/4 SK* 6/6 SK* 10/10 SK*
M	Medium	03/03 04/04 06/06 08/08 10/10 13/13	3/10 4/10 6/10	15/15/6	6/13	04/04 06/06 10/10
S	Rough (rough surface)	03/03 06/06 08/08 10/08 10/10 13/13	3/10 4/10 6/10	15/15/6	2/5 3/5 3/10 4/10 6/13 8/15	04/04 06/06 10/10
SF	Very Rough (smooth surface)	04/04 06/06 10/06 10/10		15/15/6	7/15	

Additional qualities and sizes upon request.

* very sharp-edged
** also available without angle cut

Microfinishing Media

Type	Corn size
KXMA 16	1.7 – 2.4 mm
KXMA 20	1.3 – 1.8 mm
KXMA 24	0.8 – 1.4 mm

Fine grains of sintered ceramic. Very high density. Especially suitable for fine grinding and polishing of hardened steel.

Highly wear resistant. Available in different grain sizes. Very good for work pieces with groove like depressions and fine detailed toothings.

Stainless Steel Shots

Stainless Steel Balls

Common sizes 2.4, 3.2 and 4.0 mm. Additional sizes available upon request.

Material:
1.4301 = AISI 304
AISI 420

Satellites

Satellite size is SAT 3/5. Additional sizes available upon request.

Material:
1.4301 = AISI 304
AISI 420

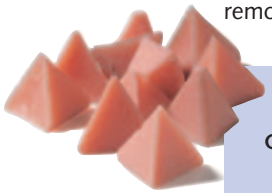
Stainless Steel Pins

Common size 0.4 x 7 mm. Additional sizes available upon request.

Particularly suitable for magnetic polisher.

Plastic Grinding Chips

These high quality grinding chips distinguish themselves by their capacity for high stock removal rates and high quality surface finishes. Their soft bond ensures no orange skin and no hardening of the work piece surface.



Quality	Color	Grinding Effect	K Cone Size a	P Pyramid Size a
G*	orange	fine grinding	10, 12, 18	10, 12, 15
X*	white	fine grinding up to polishing, especially for the jewelry industry	10, 12, 18	10, 12, 15
O	blue	high performance grinding normal surface finishes	10, 12, 18	6, 10, 12, 15
A	red	medium performance grinding normal surface finishes	10, 12, 14	6, 10, 16
T	purple	very high performance grinding rough surface finishes	10, 12, 18	10, 12, 15

* Suitable for grinding jewelry with cubic zirconia.

Additional qualities and sizes upon request.

Ordering Example: Form K, Quality X, Cone 10 mm ➔ **KX10**

Plastic Polishing Chips

are used for dry polishing of jewelry.

They are especially suitable for processing swivels and other hollow items, where fragments of walnut-shell media might get stuck. They are highly recommended for silver jewelry.

Quality	Color	Polishing effect	D Triangle Size a/b	L Lens Size a
FP	white	fine polishing	03/10	03

Ordering example: Form L, Quality FP, Size 3 mm ➔ **L FP 3**

Compounds

In the wet process, compounds are added to the Disc-Finishing machines. During the grinding process, they provide the work pieces with a clean, bright and non-corroded surface.

With impact-sensitive work pieces, the compound acts as a foam buffer from the media.

The OTEC compounds are not only characterized by optimal finishing results, but are also easy to split in the waste water clarification system, because they do not contain strong complexing agents.

Type	Area of Application	Description	Ph Value	Dosage
SC 4*	universal for wet grinding & wet polishing	heavy foaming for all non-iron metals	6.3	1 – 5%
SC 5*	fine grinding & wet polishing	Good foaming behavior**, brightening, for all non-iron metals	6.5	3 – 5%
SC 13	wet grinding & wet polishing	universal (for both iron & non-iron metals), with corrosion protection	7.7	1 – 5%
SC 15	wet grinding (especially for recycling centrifuge)	universal (especially for iron metals), with corrosion protection	9.1	1 – 5%
SC 18	wet grinding (especially suitable for Micro Filtration Units)	universal compound with little corrosion prevention	8.6	1 – 5%
SC 19	wet grinding (especially suitable for Micro Filtration Units)	universal compound with very good corrosion prevention	7.9	1 – 5%
SC 21	wet grinding (especially suitable for Micro Filtration Units)	universal compound with very good foaming behaviour, brightening, for all non-iron metals	7.5	1 – 5%

* different concentrations available

** especially jewelry industry

Walnut-Shell Granule Impregnated with Polishing Paste

These granules are impregnated with a polishing paste, so that for the first three to four loads no polishing paste needs to be added.

Designations:

big						fine
H 1/30	H 1/50	H 1/100	H 1/200	H 1/300	H 1/400	H 1/500
4 – 6 mm	2.4 – 4 mm	1.7 – 2.4 mm	1.3 – 1.7 mm	0.8 – 1.3 mm	0.4 – 0.8 mm	0.2 – 0.4 mm

Walnut-Shell Granule Impregnated with Grinding Paste

These granules are impregnated with a grinding paste, so that for the first three to four loads no grinding paste needs to be added.

Designations:

big						fine
H 2/30	H 2/50	H 2/100	H 2/200	H 2/300	H 2/400	H 2/500
4 – 6 mm	2.4 – 4 mm	1.7 – 2.4 mm	1.3 – 1.7 mm	0.8 – 1.3 mm	0.4 – 0.8 mm	0.2 – 0.4 mm

Walnut-Shell Granule without Impregnation

This granule must be impregnated with grinding or polishing paste prior to the first use.
Dosage: 5 – 10 teaspoons/ 5 kg walnut-shell granule

Designations:

big						fine
H 0/30	H 0/50	H 0/100	H 0/200	H 0/300	H 0/400	H 0/500
4 – 6 mm	2.4 – 4 mm	1.7 – 2.4 mm	1.3 – 1.7 mm	0.8 – 1.3 mm	0.4 – 0.8 mm	0.2 – 0.4 mm

Dry Grinding Media TS 5

High efficiency for dry grinding.

Available granules: 3 – 5 mm, crushed.

Grinding Paste

Dry grinding paste SP 15

For dry grinding work pieces of all kinds. Especially suitable for work pieces made of plastic. Very strong cutting effect. Should be added to specific types of dry grinding media, such as walnut-shell granule, mais granule and wood-media.

Dry grinding paste SP 26

For dry grinding work pieces of all kinds. Should be added to specific types of dry grinding media, such as walnut-shell granule, mais granule and wood media.

Wet grinding paste SP 62

Increases the abrasive effect of grinding media of all kinds. It is also used to roughen dull grinding media.

Dry Grinding Oil HL 6

Serves as an adhesive when using grinding and polishing powder or as a lube additive to prevent the granules from drying-out when dry polishing.

In addition it binds the dust and dirt particles together.

Dosage:
25 ml dry grinding oil HL 6 to grinding and polishing powder / 5 kg polishing agent.

For general dryness of the granules:
Keep adding small amounts of dry grinding oil until the correct consistency is restored.

Polishing Paste

Polishing Paste P 1

This is a dry polishing paste for mirror-shine polishing of jewelry and other work pieces.

Particularly suitable for white metals.

Dosage: 1 teaspoon / ea. 5 kg polishing agent

Polishing Paste P 2

This is a dry polishing paste for mirror-shine polishing of jewelry and other work pieces.

Particularly suitable for non-ferrous metall

Dosage: 1 teaspoon / ea. 5 kg polishing agent

Polishing Paste P 6

This is a dry polishing paste for mirror-shine of jewelry and other work pieces.
Avaiable in tube, especially for jewelry shops.

Dosage: 1 teaspoon / ea. 5 kg polishing agent or 2 – 3 cm from the tube / ea. 1 kg polishing agent

Polishing Paste P 17

This is a dry polishing paste for mirror-shine polishing of jewelry and other work pieces. Very good smoothing effect on hard materials, e. g. stainless steel or platinum alloys.

Dosage: 1 teaspoon / ea. 5 kg polishing agent

Polishing Paste NPP 3

This is a wet polishing paste for mirror-shine polishing of colour gem stones, amber and pearls.

Dosage: 1 teaspoon / ea. 5 kg polishing agent

Polishing Powder M 10

is used as addition to walnut-shell granule and dry grinding oil for mirror-shine polishing of small work pieces.

Particularly suitable for silver.

Dosage:
1/2 spoon + 25 ml dry grinding oil HL 6 / ea. 5 kg polishing agent

OTEC
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TEST US

Service

When desired, we will determine the procedure necessary to meet your specific requirements.

The samples are processed in our research laboratory and returned with a process-report all relevant parameters and specifications.

More from OTEC

Disc-Finishing Unit CF

Disc-Finishing Unit CF with Unisepa

Drag-Finishing Unit DF

Disc-Finishing Unit ECO-Maxi

Representative

Deburring · Grinding
Smoothing · Polishing

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