

SELECTION GUIDE FOR GRINDING AND POLISHING

Plane Grinding

Disc	Application areas	Hardness range	FEPA P grit size equivalent	ANSI (US) grit size equivalent	Grain size equivalent (µm)	Abrasive (embedded)	Abrasive Bond	Indicative lifetime*	Pre-dressed/ Ready-to-use
MD-Primo 120 220	Non-ferrous metals + soft materials -	40 - 250 HV -	120 220	120 220	125 68	SiC -	Resin -	50 -	Yes -
MD-Molto 220	Aluminium alloys, and hard materials containing aluminium	50 - 2000 HV	220	220	68	Diamond	Resin	100	Yes
MD-Mezzo 220	Titanium alloys	150 - 450 HV	220	220	68	Diamond	Resin	100	Yes
MD-Piano 80 120 220	Ferrous metals + hard materials - -	150 - 2000 HV - -	80 120 220	80 120 220	200 125 68	Diamond - -	Resin - -	100 - -	Yes - -

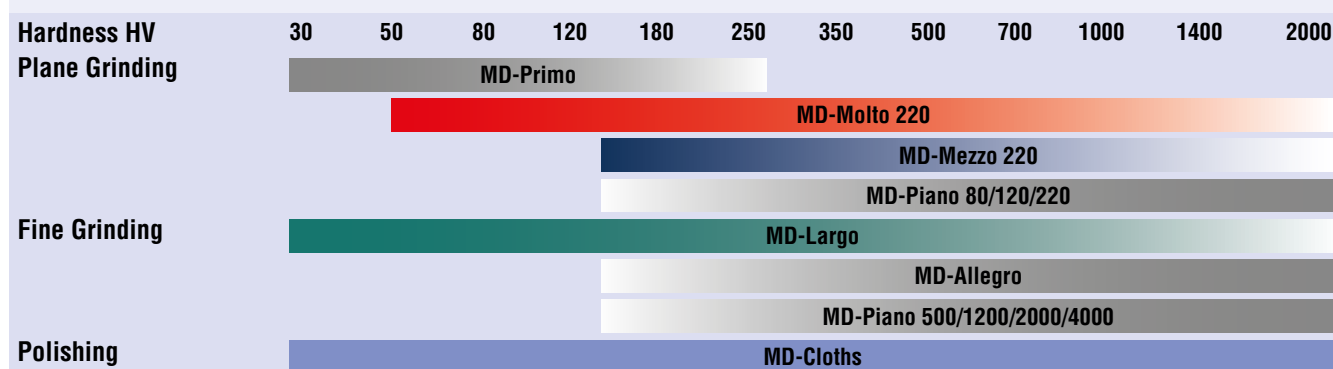
Fine Grinding

Disc	Application areas	Hardness range	FEPA P grit size equivalent	ANSI (US) grit size equivalent	Grain size equivalent (µm)	Abrasive (embedded)	Abrasive Bond	Indicative lifetime*	Pre-dressed/ Ready-to-use
MD-Piano 500 1200 2000 4000	Ferrous metals + hard materials - - -	150-2000 HV - - -	500 1200 2000 4000**	360 600 800 1000**	30 15 10 5	Diamond - - -	Resin - - -	100 - 300 -	Yes - - -

Disc	Application areas	Hardness range	Abrasive (added)	Abrasive (µm)	Indicative lifetime*	Pre-dressed/ Ready-to-use
MD-Allegro	Fine grinding of materials harder than 150 HV	>150 HV	Suspension/ spray	15-6	150	Yes
MD-Largo	Soft materials, composites with soft matrix	40-250 HV	-	9-3	-	-

Polishing cloth - please see separate brochure for further details

Disc	Application areas	Resilience	Hardness range	Abrasive (µm)	Material
MD-Plan	Fine grinding of soft material Pre-polishing of hard materials	Very low	Hard	15-3	Coated, woven polyester
MD-Pan	Fine grinding of soft metals. Pre-polishing and polishing of hard and brittle materials	Very low	Hard	15-1	Impregn. non-woven technical textile
MD-Sat	Fine grinding and polishing of ferrous metals, non-ferrous metals, coatings and plastics	Medium	Hard	9-3	Woven acetate
MD-Dur	Fine grinding and polishing of ferrous metals, non-ferrous metals, coatings and plastics	Medium	Hard	9-1	Satin woven natural silk
MD-Dac	Polishing of all materials	Medium	Hard	6-3	Satin woven acetate
MD-Mol MD-Mol APS	Polishing of ferrous and non-ferrous metals and polymers	High	Soft	≤ 3	Taffeta woven 100 % wool APS for Automatic Preparation Systems
MD-Plus	One step polishing for sintered carbides and steels	High	Soft	≤ 3	Synthetic nap
MD-Floc	Polishing of all materials	High	Soft	≤ 3	Synthetic nap
MD-Nap	Final polishing of all materials	Very high	Very soft	≤ 1	Synthetic short nap
MD-Chem MD-Chem NonStick	Final polishing of all materials	High	Soft	<1	Porous neoprene NonStick for large specimens to avoid suction



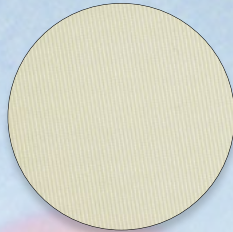
Maintenance

The MD-Consumables are practically maintenance-free which makes them very easy to use.

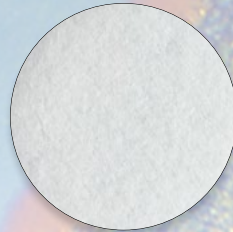
MD-Primo	A brief dressing of the SiC layer is necessary from time to time
MD-Molto / MD-Mezzo	A brief dressing of the diamond layer can be required from time to time
MD-Piano	A brief dressing of the diamond layer is necessary from time to time
MD-Allegro	Are virtually maintenance-free though occasional cleaning is recommended
MD-Largo	Are virtually maintenance-free though occasional cleaning is recommended
MD-Cloths	No maintenance required

* Indicative values corresponding to preparation of number of specimen holders, 6 x ø 30 mm. Actual lifetime depends on application (prepared material, size, shape, number etc).

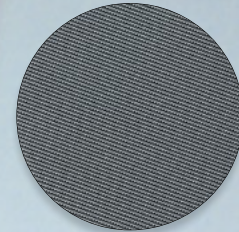
** Not part of FEPA P or ANSI standardization



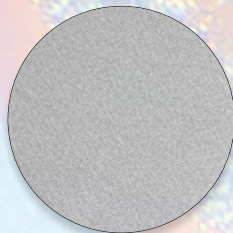
MD/DP-Plan



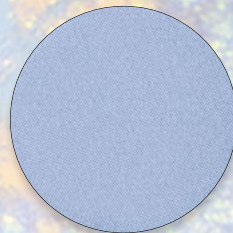
MD/DP-Pan



MD/DP-Sat



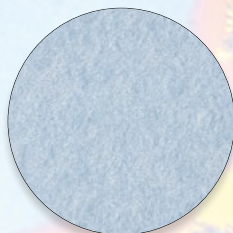
MD/DP-Dur



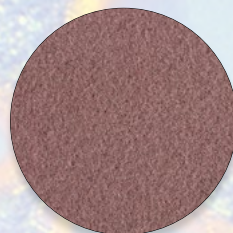
MD/DP-Dac



MD/DP-Mol
MD-Mol APS



MD/DP-Plus



MD/DP-Floc



MD/DP-Nap



OP-Nat



OP-Felt



MD/OP-Chem
MD-Chem NonStick

Polishing Cloths / Poliértücher / Draps de polissage



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Name Name Désignation	Composition Zusammensetzung Composition	Abrasive/Grain size Poliermittel/Korngrösse Abrasis/Taille de grain	Application Anwendung Application
MD-Plan DP-Plan	Coated, woven polyester Gewehtes Polyester, beschichtet Toile polyester	Diamond / 15 - 3 µm Diamanten / 15 - 3 µm Diamant / 15 - 3 µm	Fine grinding of soft metals Pre-polishing of hard materials Feinschleifen weicher Metalle Vorpolieren von harten Materialien Prépolissage fin des métaux tendres Polissage grossier des matériaux durs
MD-Pan DP-Pan	Impregnated non-woven technical textile Nichtgewebtes technisches Textil, imprägniert Textile technique imprégné, non-tissé	Diamond / 15 - 1 µm Diamanten / 15 - 1 µm Diamant / 15 - 1 µm	Fine grinding of soft metals Pre-polishing of hard and brittle materials Feinschleifen weicher Metalle Vorpolieren von harten und spröden Materialien Prépolissage fin des métaux tendres Polissage grossier des matériaux durs et friables
MD-Sat DP-Sat	Woven acetate Gewehtes Azetat Acétate tissé	Diamond / 9 - 3 µm Diamanten / 9 - 3 µm Diamant / 9 - 3 µm	Fine grinding and polishing of ferrous metals, non-ferrous metals, coatings and plastics Feinschleifen und Polieren von Eisen- und Nichteisenmetallen, Schichten und Kunststoffen Prépolissage fin et polissage des métaux ferreux, métaux non-ferreux, revêtements et plastiques
MD-Dur DP-Dur	Satin woven natural silk Satingewebte Naturseide Soie naturelle tissée satin	Diamond / 9 - 1 µm Diamanten / 9 - 1 µm Diamant / 9 - 1 µm	Fine grinding and polishing of ferrous metals, non-ferrous metals, coatings and plastics Feinschleifen und Polieren von Eisen- und Nichteisenmetallen, Schichten und Kunststoffen Prépolissage fin et polissage des métaux ferreux, métaux non-ferreux, revêtements et plastiques
MD-Dac DP-Dac	Satin woven acetate Satingewebtes Azetat Acétate tissé satin	Diamond / 9 - 3 µm Diamanten / 9 - 3 µm Diamant / 9 - 3 µm	Polishing of all materials Poliertuch für alle Materialien Polissage de tous les matériaux
MD-Mol DP-Mol MD-Mol APS	Taffeta woven 100% wool Taftgewebe, 100% Wolle Taffeta tissé 100% laine	Diamond / ≤ 3 µm Diamanten / ≤ 3 µm Diamant / ≤ 3 µm	Polishing of ferrous and non-ferrous metals and polymers Polieren von Eisen- und Nichteisenmetallen und Kunststoffen Polissage des métaux ferreux et non-ferreux et des polymères APS for Automatic Preparation Systems APS für Automatische Präparationssysteme APS pour systèmes de préparation automatique
OP-Nat	Woven wool felt Wollfilzgewebe Feutrine de laine tissée	Alumina / ≤ 9 µm Aluminiumoxid / ≤ 9µm Oxyde d'aluminium / ≤ 9µm	Polishing of ferrous metals Polieren von Eisenmetallen Polissage des métaux ferreux
OP-Felt	Thick felt Dicker Filz Feutrine épaisse	Alumina / ≤ 9 µm Aluminiumoxid / ≤ 9µm Oxyde d'aluminium / ≤ 9µm	Polishing of ferrous and non-ferrous metals Polieren von Eisen- und Nichteisenmetallen Polissage des métaux ferreux et non-ferreux
MD-Plus DP-Plus	Synthetic nap Synthetikflor Laine synthétique	Diamond / 3 µm Diamanten / 3 µm Diamant / 3 µm	One step polishing for sintered carbides and steels Einstufiges Polieren von Hartmetallen und Stählen Polissage en une étape des carbures frittés et des aciers
MD-Floc DP-Floc	Synthetic nap Synthetikflor Laine synthétique	Diamond, oxide polishing / ≤ 3 µm Diamanten, Oxidpolieren / ≤ 3 µm Diamant, polissage aux oxydes / ≤ 3 µm	Polishing of all materials Polieren aller Materialien Polissage de tous les matériaux
MD-Nap DP-Nap	Synthetic short nap Kurzer Synthetikflor Laine synthétique à poils raz	Diamond, oxide polishing / ≤ 1 µm Diamanten, Oxidpolieren / ≤ 1 µm Diamant, polissage aux oxydes / ≤ 1 µm	Final polishing of all materials Endpolieren aller Materialien Polissage final de tous les matériaux
MD-Chem OP-Chem MD-Chem NonStick	Porous neoprene Poröses Neopren Néoprène poreux	Oxide polishing / < 1µm Oxidpolieren / < 1 µm Polissage aux oxydes / < 1 µm	Final polishing of all materials Endpolieren aller Materialien Polissage final de tous les matériaux MD-Chem NonStick for large specimens MD-Chem NonStick für große Proben MD-Chem NonStick pour les grands échantillons

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