



ROCK-STARS

MADE IN ASPANG



The company

Aspanger MICA, Aspanger ASPOLIT and Quartz sand are the three main products of the company.



ASPANGER
For better Performance

Minerals with best Performance



Aspanger Bergbau und Mineralwerke GmbH & Co KG, with its more than 20 dedicated employees is a certified and leading company in its field.

The name Aspanger stands for functional mineral fillers of exceptional quality. Mined by mechanical means without the use of explosives, our products are appreciated worldwide. They improve paints, coatings, adhesives and plastics and are used in the construction industry and niche industries. Moreover, they can be used without concern in organic agriculture and cosmetics.

The raw material for the Aspanger products MICA and ASPOLIT is mined mechanically at a site to the south of Vienna. Mining has been carried out at this deposit since 1856 and the reserves will serve for

Each year we mine some 300,000 tons of minerals, from which 12,000 tons are processed to MICA and ASPOLIT.

more than 100 years. The production facilities, as well as the organization, have been significantly expanded and modernized since 2015.





A mineral that changed everything

Aspanger MICA and ASPOLIT stand for excellent material properties. MICA is pure fine Muscovite-MICA, ASPOLIT is a multi-component mineral which mainly consists of Muscovite-MICA and quartz. The range is complemented by quartz sand.



Opencast mining

Our opencast mining takes place using the ripping process utilizing modern backhoe excavators. So the rock is not burdened by explosive residues and due to its purity it serves, among others as excellent filler also in sensitive industries such as cosmetics or agriculture.



Wet processing

In wet processing, slurried with our own pure water without any chemical addition, the rocks are crushed, sieved, slurried, and hydrocycloned in order to separate it into Muscovite-MICA and quartz. The pure Muscovite-MICA is used for our Aspanger MICA. Our more component filler ASPOLIT mainly consists of Muscovite-MICA and quartz.

Very good | Excellent

Characteristics	MICA	ASPOLIT
Reduction of permeability (highest Aspect-ratio)		
Improvement in heat deformation resistance		
Reduction of shrinkage and crack formation		
Excellent wettability (low oil absorption)		
Increasing the coverage properties (opacity)		
Reduction of pinhole effect		
UV/IR and chemical resistant		
Excellent adhesion and dispersibility		
Increase of wet-rub resistance		



Comparison Silicate Fillers

	MICA/ASPOLIT	TALCUM	KAOLIN
Mohs hardness	2.5/(2.5/7)	1	2
Aspect ratio	- 60:1	- 30:1	- 15:1
Benefits	Excellent wettability (low oil absorption) Reduction of permeability = anti corrosion (high Aspect ratio)		
Polarity	hydrophilic	surface (hydrophobic), edge (hydrophilic)	hydrophilic



Dry processing

In dry processing, the filler is dried to below 1 % moisture and is finely milled to the customer's specific requirement. Subsequently, the fillers are packaged as required into **valve sacks** or big bags; **bulk shipment in silos** is also possible.



Laboratory

To guarantee excellent quality, on-going strict controls are performed along the entire value chain. For this purpose, our in-house laboratory is well equipped with modern measuring instruments such as the XRD X-ray diffractometer and the Mastersizer.

Aspanger is reducing expenses

Due to their **low oil absorption**, Aspanger products have excellent wettability. This helps save costs.

Aspanger keeps tight

Aspanger products are top in **corrosion protection**. This is due to the platelet-shaped structure of the mineral which reduces the permeability significantly. (Aspect Ratio 1:60).

Aspanger covers excellently

With Aspanger products the **opacity** of e.g. paints and coatings is significantly improved – Achieving the aim faster using less material.

Aspanger is naturally pure

Through the explosive-free mining of the raw material, Aspanger products can be used without concern in organic agriculture and the cosmetics industry (**COSMOS approved**).





High coverage



What if the opacity of a paint is so good that repeated coats are unnecessary? This is achieved by the use of highly efficient Aspanger MICA and Aspanger ASPOLIT in the paint industry.

Less is often more, with the efficient Aspanger filler.

Advantages of Aspanger MICA and ASPOLIT

- excellent wettability due to low oil absorption
- increases opacity & coverage
- reduces cracking & shrinkage
- ensures good adhesion
- reduces pinhole effect
- UV, IR and chemical resistance
- excellent dispersibility (hydrophilic polarity)
- improves wet rub resistance (mainly Aspolit because of abrasion)
- reduces visibility of overlapping

Rust has no Chance

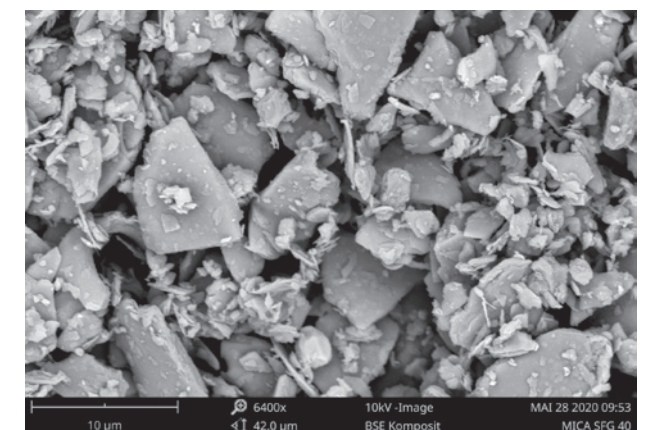


The microscope reveals why Aspanger MICA is the friend of every car lover: the platelet-shaped structure of the mineral reduces the permeability of coatings and protects against corrosion.

Aspanger MICA holds together what belongs together - it reduces the formation of cracks in coatings.

Advantages of Aspanger MICA and ASPOLIT

- reducing permeability and corrosion due to high aspect ratio
- excellent wettability due to low oil absorption
- reduces cracking & shrinkage & overlapping
- ensures good adhesion
- excellent UV, IR and chemical resistance
- reduces pinhole effect
- excellent dispersibility (hydrophilic polarity)





Suited for all purposes

Aspanger MICA and Aspanger ASPOLIT perfectly meet the high demands placed on building materials. For example, they extend the service life of jointing compounds or are ideal for withstanding weathering influences on facades. The high aspect-ratio causes a so-called lotus-effect which prevents any kind of adhesion. Tile adhesive can be perfectly applied due to the improved adhesion.

Extreme conditions such as heat, cold or humidity? Aspanger fillers are top of their class.

Advantages of Aspanger MICA and ASPOLIT

- excellent wettability due to low oil absorption
- increases opacity & coverage
- Reduces cracking & shrinkage & overlapping
- ensures good adhesion
- excellent UV, IR and chemical resistance
- excellent dispersibility
- reduces pinhole effect
- improves wet rub resistance (mainly Aspolit because of abrasion)
- Reduction of permeability (barrier effect)



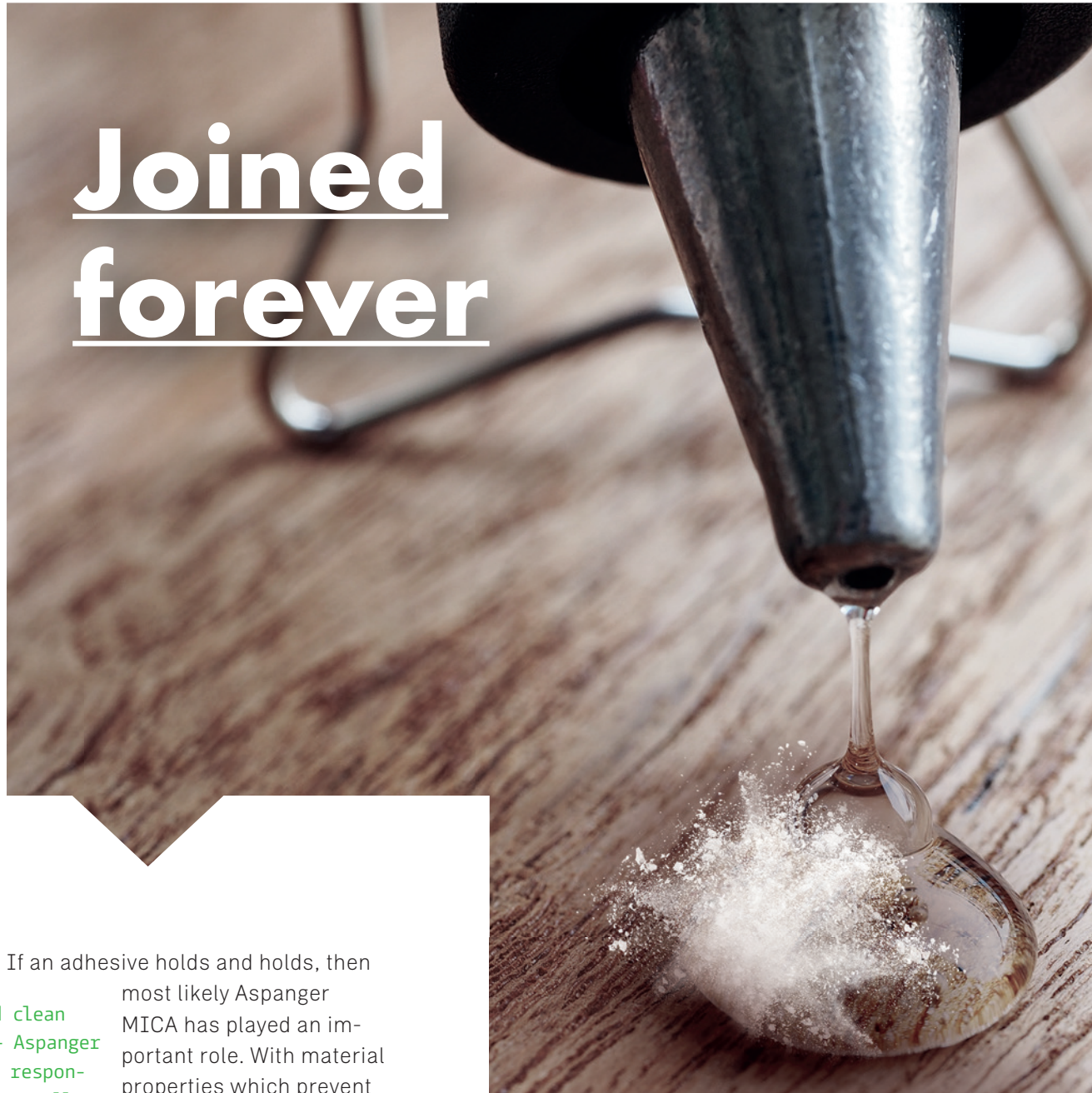
Keeping its shape

Improve the properties of plastics & compounds? Aspanger MICA can do this. Plastic does not bend even under extreme conditions, is weather and higher acid resistant.

The modern world without plastics is hardly imaginable. And Aspanger filler as well.

Advantages of Aspanger MICA

- improves mechanical strength & stiffness
- improves heat resistance
- low thermal conductivity
- low electric conductivity - isolation effect
- reduces cracking & shrinkage & overlapping
- excellent wettability due to low oil absorption
- reduces pinhole effect
- excellent dispersibility (hydrophilic polarity)
- excellent UV, IR and chemical resistance
- optimal barrier effect (WVTR & OTR)



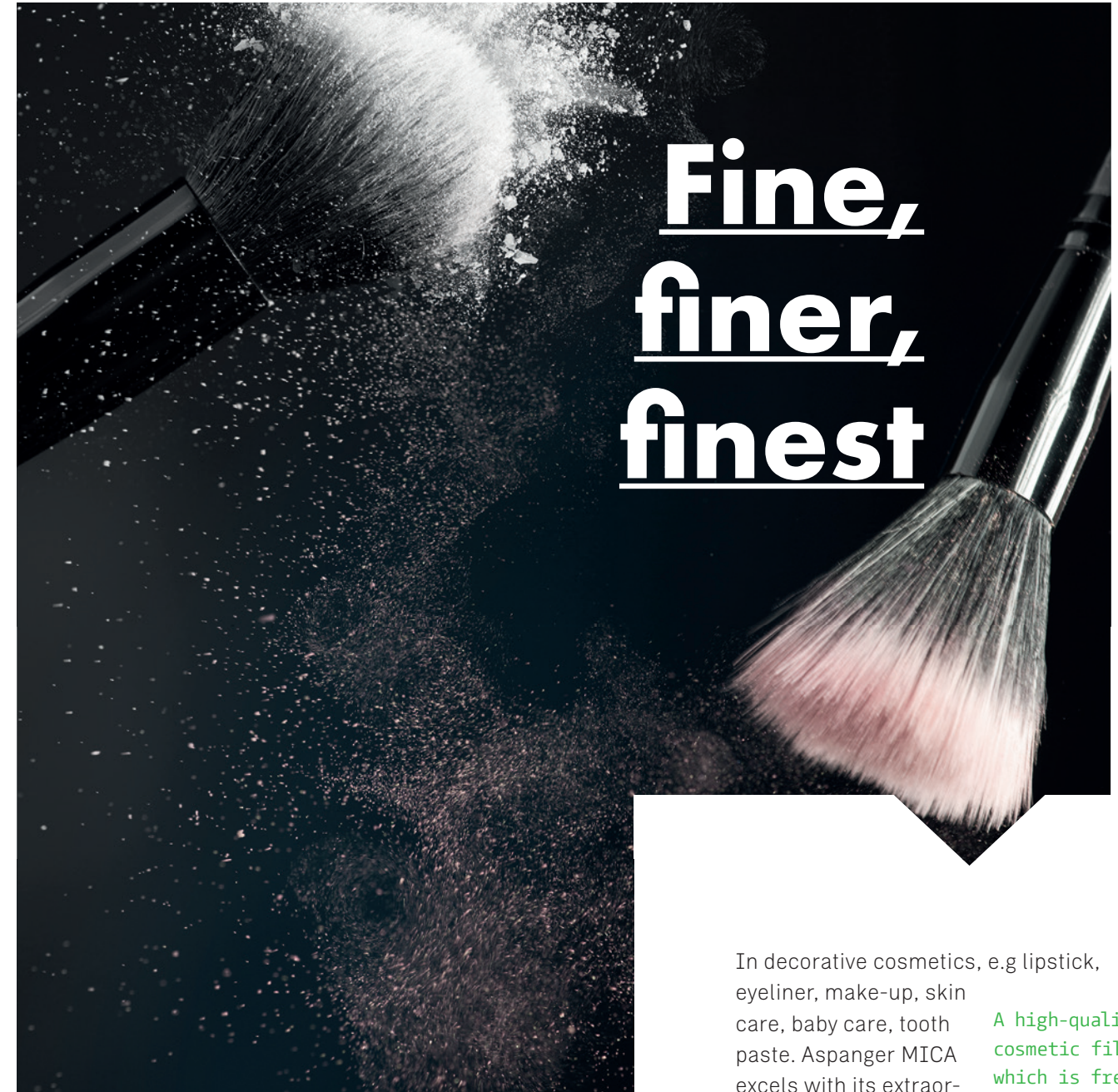
Joined forever

If an adhesive holds and holds, then most likely Aspanger MICA has played an important role. With material properties which prevent the formation of cracks and at the same time lead to firm, but also flexible bonds.

Quick and clean bonding – Aspanger filler is responsible for excellent product properties.

Advantages of Aspanger MICA and ASPOLIT

- excellent combination of viscosity and tensile strength due to mineral structure
- excellent wettability due to low oil absorption
- reduces cracking & shrinkage
- chemical resistance
- ensures good adhesion
- excellent dispersibility



Fine, finer, finest

In decorative cosmetics, e.g lipstick, eyeliner, make-up, skin care, baby care, tooth paste. Aspanger MICA excels with its extraordinary fineness. The finer the filler the better the matting effect. Furthermore it is environmentally friendly and antiallergenic.

A high-quality cosmetic filler which is free from animal testing and is 100 % produced in Austria without child labour.

Advantages of Aspanger MICA

- excellent wettability due to low oil absorption
- REACH/CMR/Nanoparticle regulations are not applicable
- marginal content of heavy metals (COSMOS)
- high whiteness
- Softness
- increases opacity (aspect ratio 1:60)
- reduces cracking
- excellent dispersibility and adhesion



MICA	Cosmetics		
	C	M	F
D90 (µm)*	40	27	16
D50 (µm)*	16	12	8

* Mastersizer 3000E



Biologically impeccable

Due to its special properties, Aspanger MICA is an indispensable aid in biodynamic agriculture. MICA has proven itself to be a purely organic insecticide (e.g. against the Pear Psyllid insect or spotted-wing drosophila), to protect fruit (e.g. Elderberry or Wine) and vegetables from excessive sun exposure or to reduce the russetting during the fruit phase.

Biological UV protection of fruits and vegetables through the use of finely ground rock flour.

- excellent wettability due to low oil absorption
- purely organic insecticide
- safe to use in the food industry
- improves surface properties of food & vegetable
- protection against russetting
- excellent UV resistance
- excellent Dispersibility
- reduction of permeability (high aspect ratio)

Advantages of Aspanger MICA



As good as it gets

Where high performance is required, Aspanger MICA and Aspanger ASPOLIT convince by their exceptionally high quality. This makes them particularly interesting for industrial niches such as the refractory industry, iron foundries, in the production of clutch and brake linings or of (coloured) pencils, where they significantly improve the product properties.

High temperatures? Extreme demands? Fillers from Aspanger are true high performance performers.

Niche markets

- iron foundry (sand)
- special paper application
- refractory industry
- clutch & brake pads
- (coloured) pencils
- insulation materials
- ceramics

Aspanger non-milled Aspolit mixed mineral of Muscovite-MICA & Quartz

- grain size d98 of 160 µm
- available in semi-moist or dried form



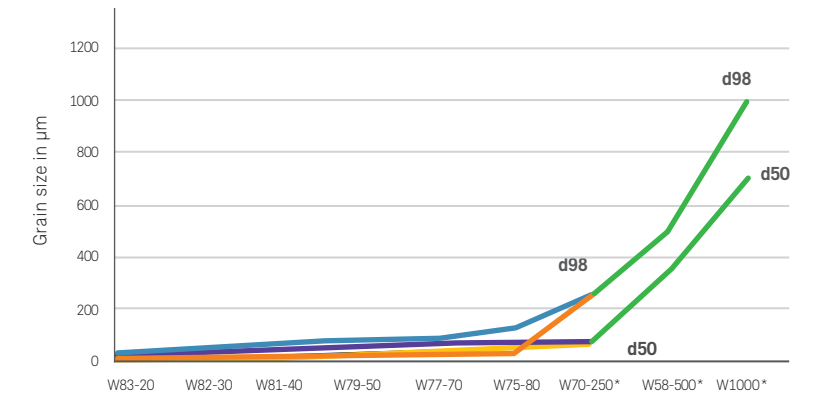
The products: an overview



Aspanger ASPOLIT W

Density	2.75 g/cm ³
Mohs hardness	2.5 (MICA) 7 (Quartz)
pH-value	9.5
Moisture	< 1 %

Grain size *or air jet sieve



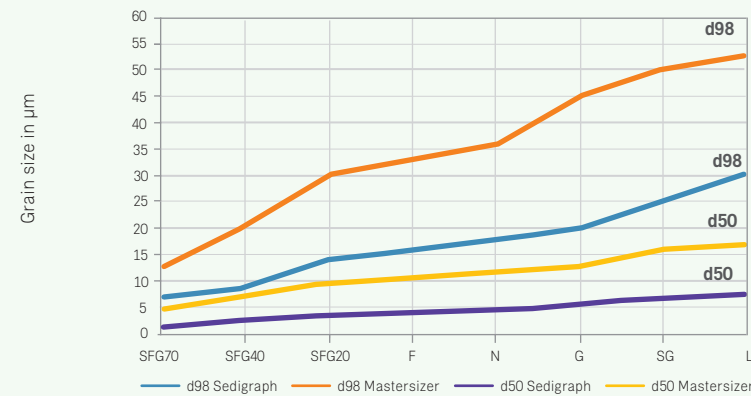
ASPOLIT W	W 83-20	W 82-30	W 81-40	W 79-50	W 77-70	W 75-80	W 70-250	W 58-500	W 1000
Oil absorption (g/100g)	21	20	18	15	13	13	11	-	-
L* value (%)	90	90	90	89	88	88	87	-	-
Grain size D98 (µm) (Sedi/MS)	20/30	30/48	40/67	50/83	70/93	80/126	250*/250	500*	1000*
Grain size D50 (µm) (Sedi/MS)	3/8	4/12	7/14	10/21	14/20	19/26	75*/40	350*	700*

*sieving

Aspanger MICA

Density	2.85 g/cm ³
Mohs hardness	2.5
Refractivity	1.56
pH-value	9.5
Moisture	< 1 %

Grain size

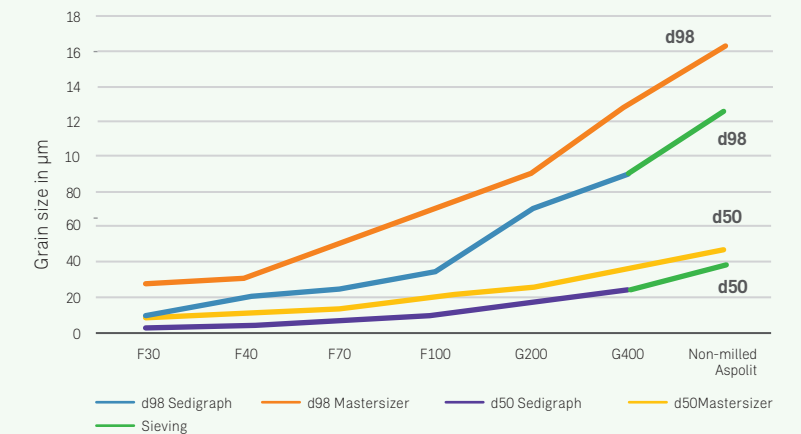


MICA	SFG70	SFG40	SFG20	F	N	G	SG	L
Oil absorption (g/100g)	38	28	26	24	24	22	20	17
L* value (%)	94	93	92	92	91	91	90	90
Grain size D98 (µm) (Sedi/MS)	7/13	9/21	14/30	16/33	18/36	20/45	25/50	30/53
Grain size D50 (Sedi/MS)	1,5/5	2,7/7,5	3,8/9,5	4,2/10,5	4,6/11,5	5,4/13	7/16	7,5/16,8

Aspanger ASPOLIT

Density	2.75 g/cm ³
Mohs hardness	2.5 (MICA) 7 (Quartz)
pH-value	9.5
Moisture	< 1 %

Grain size *or air jet sieve



ASPOLIT	F 30	F 40	F 70	F 100	G 200	G 400	Non-milled Aspolit
Oil absorption (g/100g)	22	21	20	17	13	12	-
L* value (%)	90	90	89	89	84	85	82
Grain size D98 (µm) (Sedi/MS)	10/27	20/34	25/50	35/70	70/95	(sieving/MS) 100/155	(sieving/MS) 125/160
Grain size D50 (µm) (Sedi/MS)	3/8	4/12	7/13	10/21	18/26	(sieving/MS) 26/50	(sieving/MS) 38/52

The stated technical data and information on all products shown herein are not specifications. These are average values resulting from careful research and given without legal liability.

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