



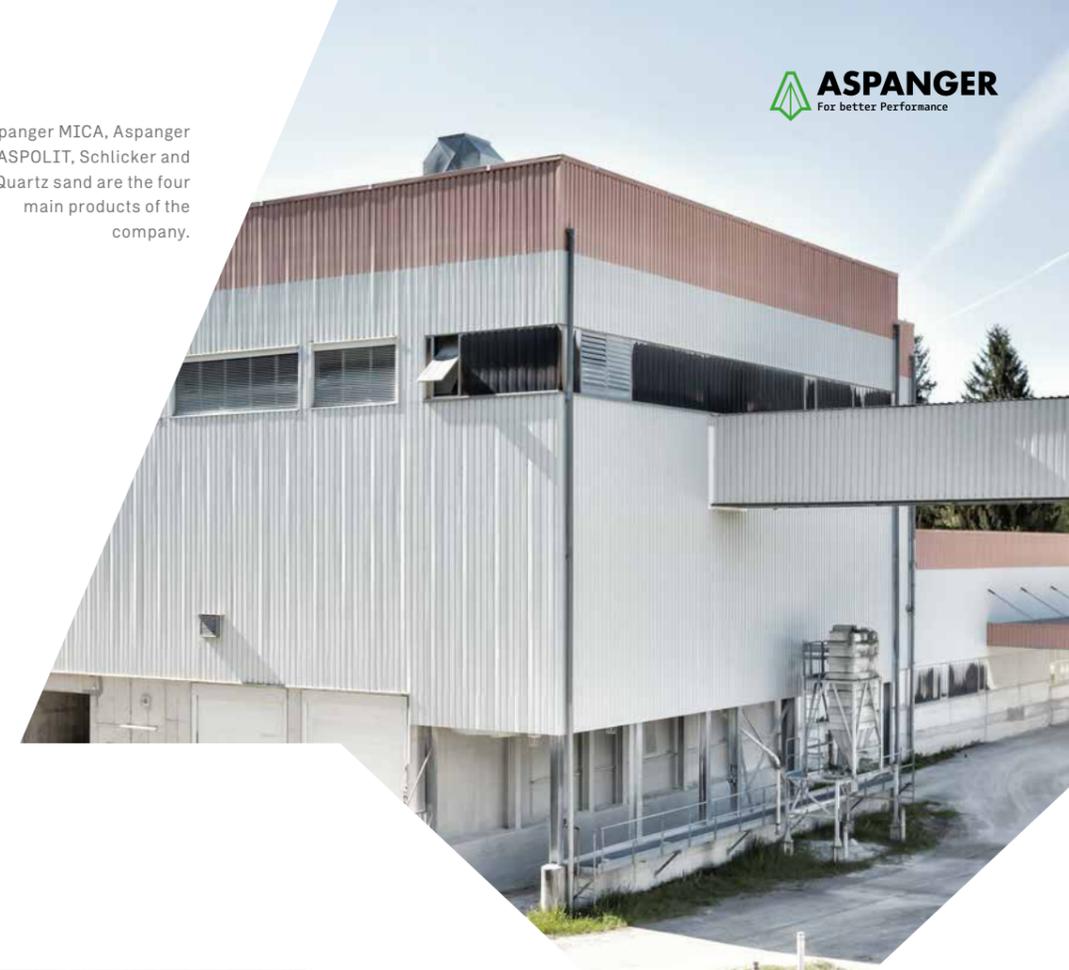
# **ROCK-STARS**

MADE IN ASPANG



The company

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



# Minerals with best Performance

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 chemical industry and niche industries. Moreover, they can be used without concern in organic agriculture and cosmetics.



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

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

Each year we mine some 300,000 tons of minerals, from which 20,000 tons are processed to MICA and ASPOLIT.

will serve for many decades to come. Under the new ownership 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 made of muscovite-mica and quartz. The range is complemented by Schlicker and quartz sand.



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### Opencast mining

Our opencast mining takes place using the ripping process utilizing modern standard and 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.

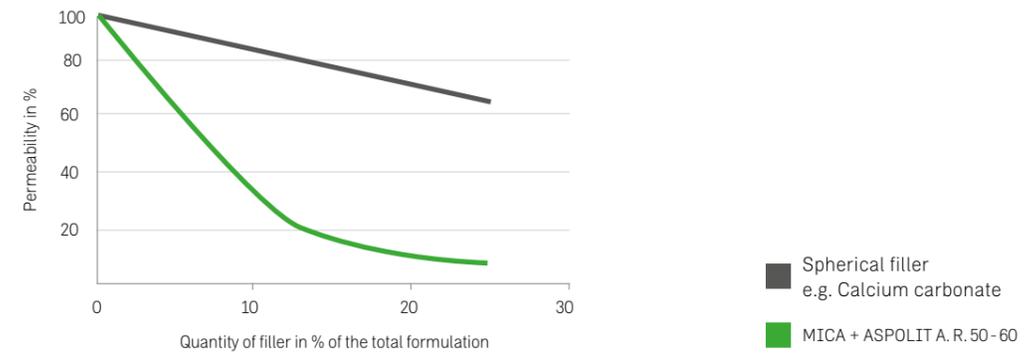


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### Wet processing

In wet processing, 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 Aspanger ASPOLIT consists of MICA and quartz.

### Relationship between Aspect Ratio and Permeability



3

### Dry processing

In dry processing, the filler is dried to below 0.5% moisture and is finely ground to the customer's specific requirement. Subsequently, the fillers are packaged as required into sacks or Big bags; bulk shipment in silos is also possible.



4

### Laboratory

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

Characteristics	MICA	ASPOLIT
Reduction of permeability (Aspect-ratio)	▲▲▲	▲▲▲
Improvement in heat deformation resistance	▲▲▲	▲▲▲
Reduction of shrinkage and crack formation	▲▲	▲▲▲
Excellent wettability (oil absorption)	▲▲▲	▲▲▲
Increasing the coverage properties (opacity)	▲▲▲	▲▲
Pinhole effect	▲▲▲	▲▲▲

Very good ▲▲  
 Excellent ▲▲▲

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

**Aspanger seals 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.



# 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 production.

Less is often more, as is the case with the efficient Aspanger filler.

## Advantages of Aspanger MICA and ASPOLIT

- optimum wettability due to low oil absorption
- improves wet rub resistance (ASPOLIT only)
- ensures very good adhesion
- increases opacity / coverage
- reduces cracking

# 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 - thus it reduces the formation of cracks in coatings.

## Advantages of Aspanger MICA

- reduced permeability due to high aspect ratio
- optimum wettability due to low oil absorption
- reduces cracking
- ensures very good adhesion
- increases opacity / coverage
- is UV and IR resistant



# Keeping its shape

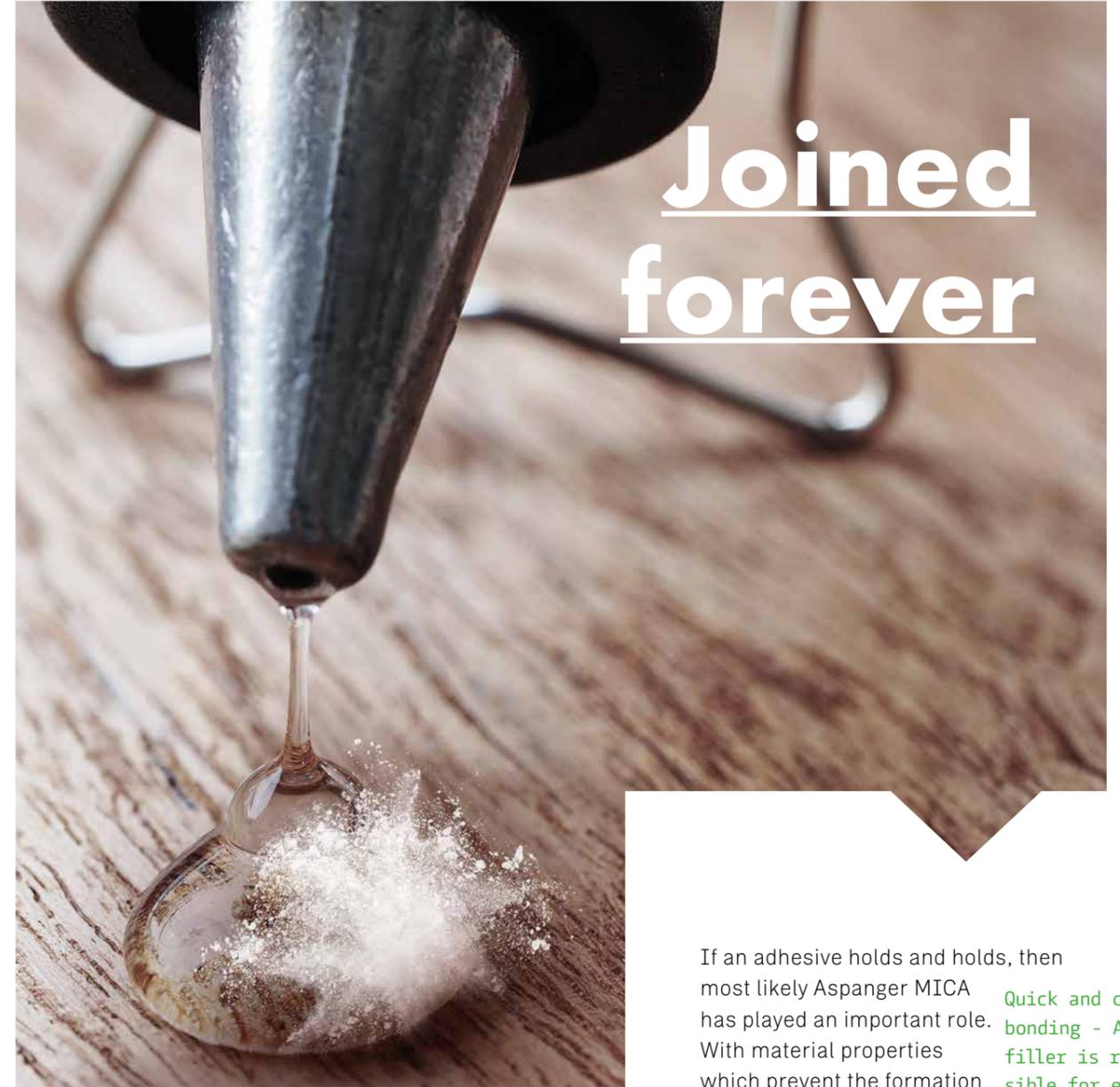
Improve the properties of plastics?

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

Aspanger MICA can do this. Thus plastic does not bend even under extreme conditions, is weather and higher acid resistant.

## Advantages of Aspanger MICA

- improves heat resistance
- reduces cracking and shrinkage
- increases the modulus of elasticity
- improves dielectric properties
- improves surface properties
- improves chemical resistance
- ensures very good adhesion
- is UV and IR resistant



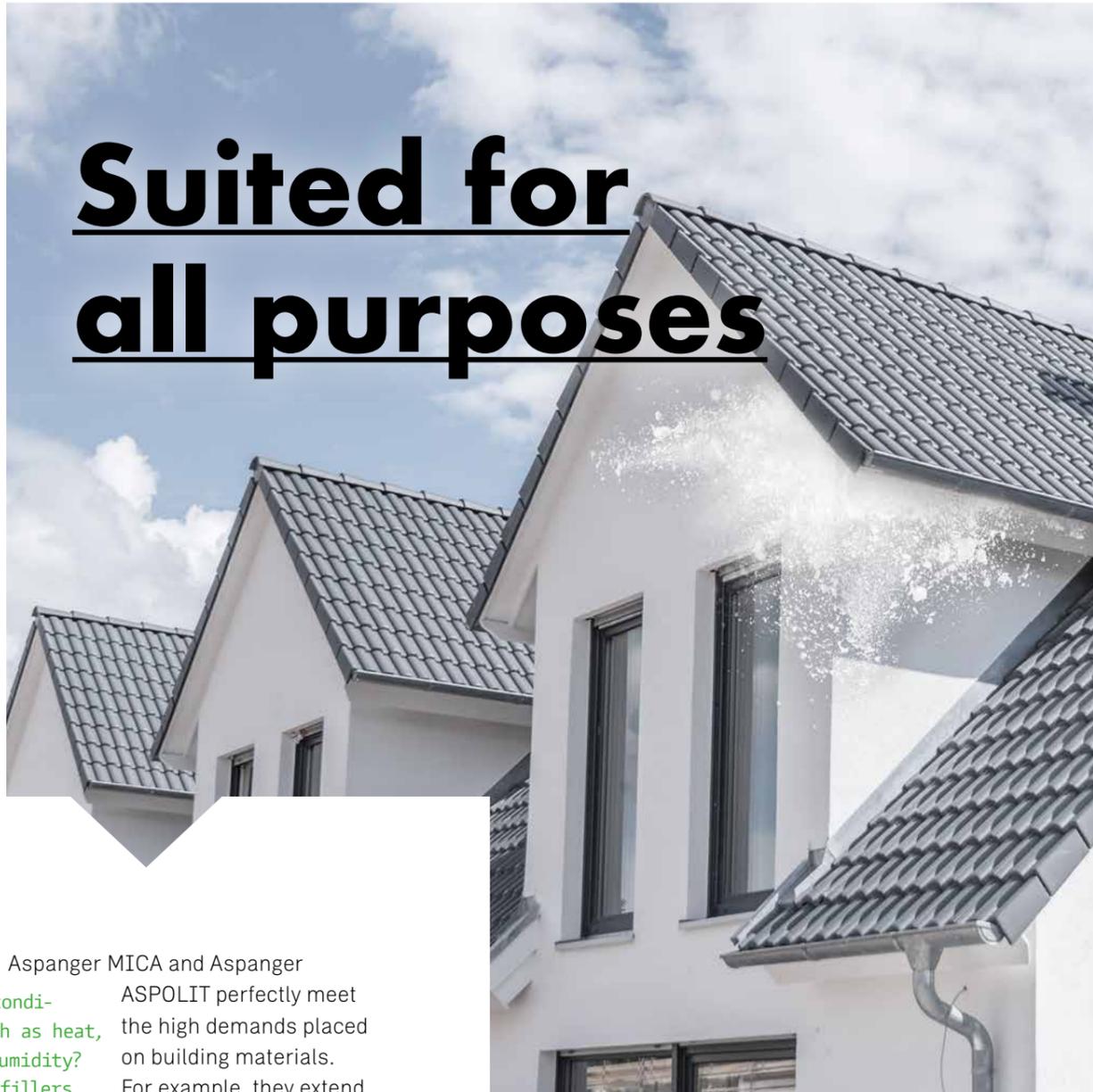
# Joined forever

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

- reduces cracking and shrinkage
- ensures very good adhesion
- combines viscosity and tensile strength optimally.



# 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.

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

## Advantages of Aspanger MICA and ASPOLIT

- allows optimum wettability due to low oil absorption
- ensures very good adhesion
- increases the opacity / coverage
- reduces cracking and shrinkage
- improves wet rub resistance (ASPOLIT only)



# 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

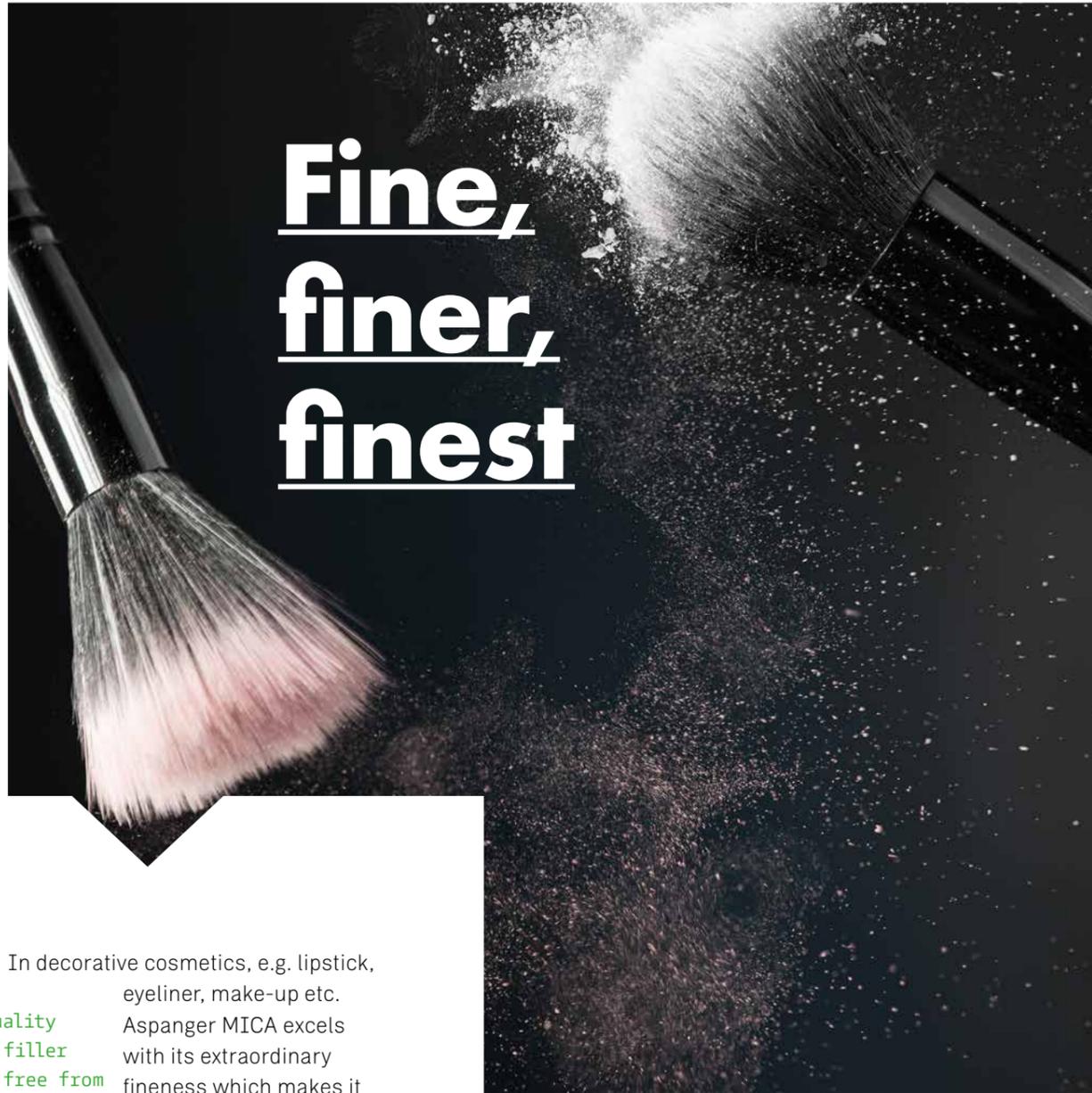
High temperatures? Extreme demands? Fillers from Aspanger are true high performance performers.

## Niche markets

- Refractory Industry
- Iron foundries (finishing sand)
- Clutch and brake pads
- (Coloured) pencils
- insulation materials
- ceramics

### Aspanger Schlicker mixed mineral of Muskovit-Glimmer & Quarz

- filler for the refractory industry
- grain size d98 of 125 µm
- available in semi-moist or dried form



# Fine, finer, finest

In decorative cosmetics, e.g. lipstick, eyeliner, make-up etc.

Aspanger MICA excels with its extraordinary fineness which makes it perfect as a basis material for pearlescent pigments. The finer the filler is - the better the brushability is; and this improves the matting effect or the effect of pigments.

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



Furthermore it is environmentally friendly and antiallergenic.

## Advantages of Aspanger MICA

- improves surface properties
- ensures very good adhesion
- extremely marginal amounts of heavy metals
- increases opacity
- reduces cracking
- the REACH, CMR and Nanoparticle regulations are not applicable

Physical Data MICA Cosmetics	F	M	C
Grain size D90 (µm)	6	10	15



# 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), to protect fruit and vegetables from excessive sun exposure or to reduce the russetting during the fruit phase.

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

## Advantages of Aspanger MICA

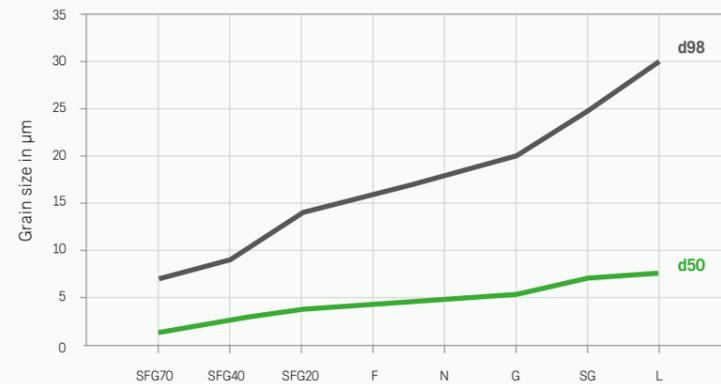
- improves surface properties
- ensures very good adhesion
- safe to use in the food industry (AGES: Austrian Agency for Health and Food Safety)



# The products:

## Aspanger MICA

Grain size Sedigraph 5120

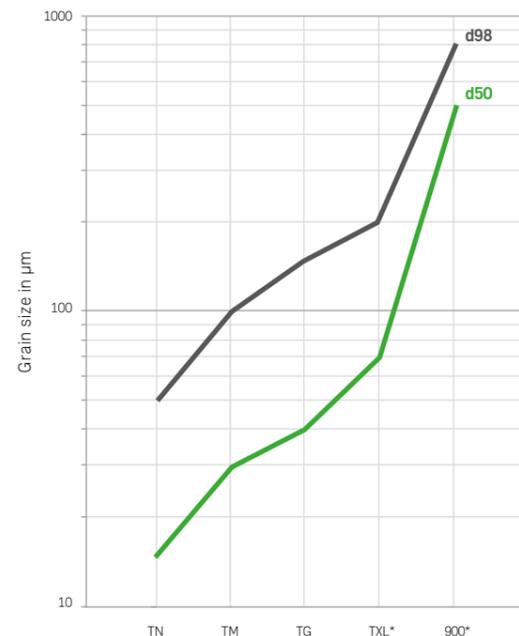


Physikalische Daten MICA	SFG70	SFG40	SFG20	F	N	G	SG	L
Oil absorption (g/100g)	38	28	26	24	24	22	20	17
Whiteness FMY (%)	85	83	83	83	80	79	78	77
Grain size D98 (µm)	6	9	14	16	18	20	25	30
Grain size D50 (µm)	1,5	2,7	3,8	4,2	4,6	5,4	7	7,5

## Aspanger MICA-T

Physical Data MICA-T	TN	TM	TG	TXL	900
Oil absorption (g/100g)	34	32	30	-	-
Whiteness FMY (%)	79	78	75	69	-
Grain size D98 (µm)	50	100	150	200	800
Grain size D50 (µm)	15	30	40	70	500

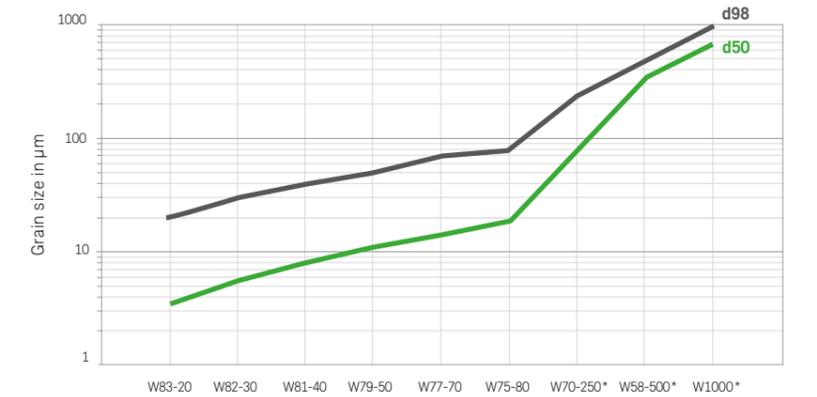
Grain size CILAS \*or air jet sieve



# an overview

## Aspanger Aspolit W

Grain size Sedigraph 5120



**NEW in this products series**

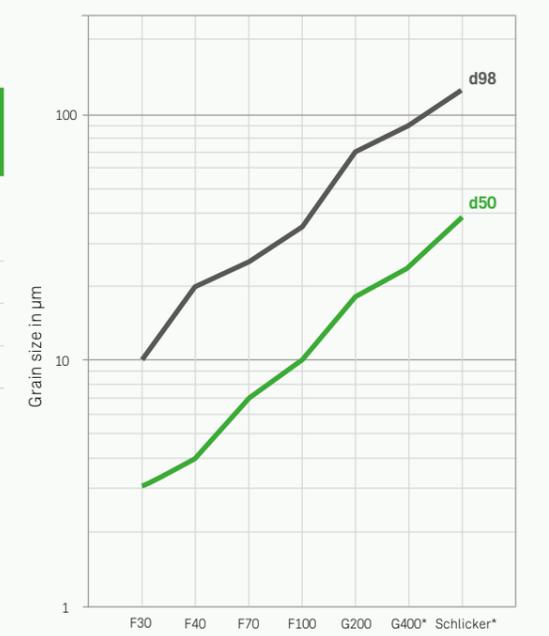
- Grain size (d98) of 20 µm – 1000 µm
- Whiteness increased by an average of 5 %

Physical Data 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	-	-
Whiteness FMY (%)	83	82	81	79	77	75	70	58	-
Grain size D98 (µm)	20	30	40	50	70	80	250	500	1000
Grain size D50 (µm)	4	6	8	10	14	18	75	350	700

## Aspanger Aspolit

Physical Data Aspolit	F 30	F 40	F 70	F 100	G 200	G 400	Schlicker semi-moist/dried
Oil absorption (g/100g)	22	21	20	17	13	12	-
Whiteness FMY (%)	78	77	76	75	70	68	-
Grain size D98 (µm)	10	20	25	35	70	90	125
Grain size D50 (µm)	3	4	7	10	18	24	38

Grain size Sedigraph 5120 \*or air jet sieve



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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