fintalc 12060 LA & 6020 LA

AS SUFFICIENT EXTENDERS FOR EXTERIOR APPLICATIONS

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PORTFOLIO–PRODUCTS

Functional minerals for your needs

finbond

Performance compound for partly replacing TiO_2

fintalc

White, hydrophobic, flexible and soft – high quality talc

finlime

Ultra fine and highly reactive quicklime and hydrated lime

findolo

Dolomite – more than a simple filler

finpcc

Tailor-made precipitated calcium carbonates for every application

fincomp

Combination of positive properties of minerals for achieving new qualities

finzeo

Innovative qualities of volcanic rock - natural clinoptilolite zeolite

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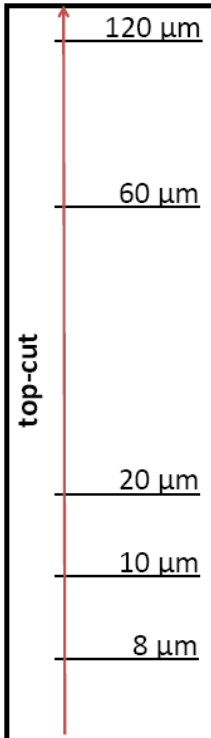
INTALC RANGE



Product	Application	Benefits
intalc 12060LA Y = 90	plasters (renders)	crack resistance reduction of pinholes TiO_2-extender increased colouring
intalc 6020LA Y = 90	exterior paints	crack resistance excellent dispersability
	interior paints	crack resistance matting effect excellent dispersability
	putties	crack resistance
intalc 20LA Y = 91,5	interior paints	TiO_2-extender excellent dispersability
intalc 10CG Y = 92	interior paints	TiO_2-extender excellent dispersability
intalc 8CG Y = 92	interior paints	TiO_2-extender excellent dispersability

12060LA & 6020LA – A NOVEL AND INNOVATIVEIDEA FOR VERSATILE CUSTOMER SOLUTIONS

Thanks to the implementation of a new production line, our intalc products now feature particularly favourable properties.

This requires a particular selection of our raw material according to the following characteristics:

Steep grain size distribution line and a clearly reduced fine fraction

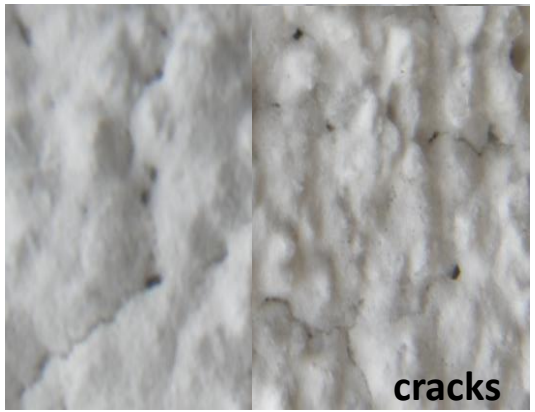
Lamellar structure

NARROW PARTICLE SIZE RANGE AND A CLEARLY REDUCED FINE FRACTION

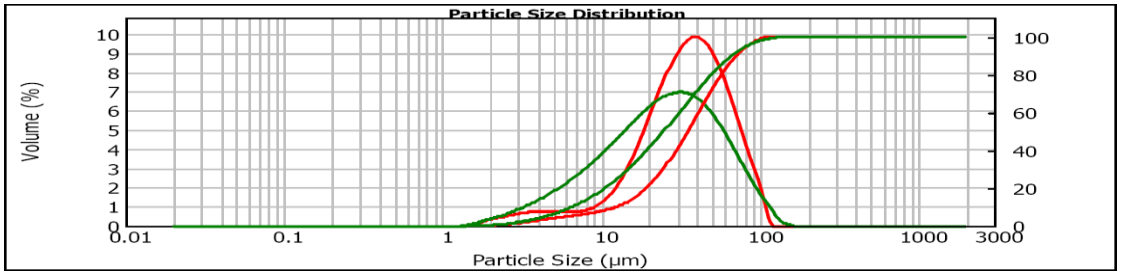
… considerably improve behaviour with regard to

“pinholes”

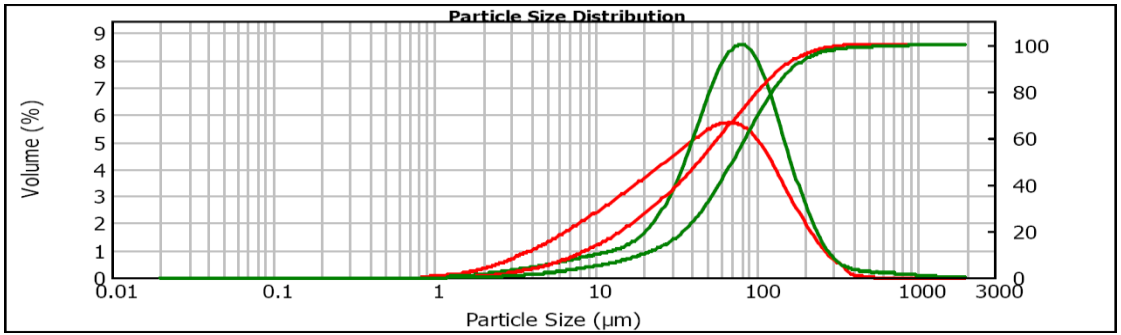
susceptibility to cracks



STEEP PARTICLE SIZE DISTRIBUTION CURVE AND A CLEARLY REDUCED FINE FRACTION

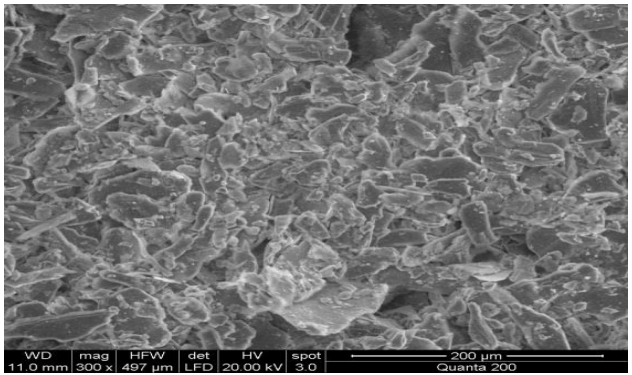


Comparison intalc 60LA/intalc 6020LA

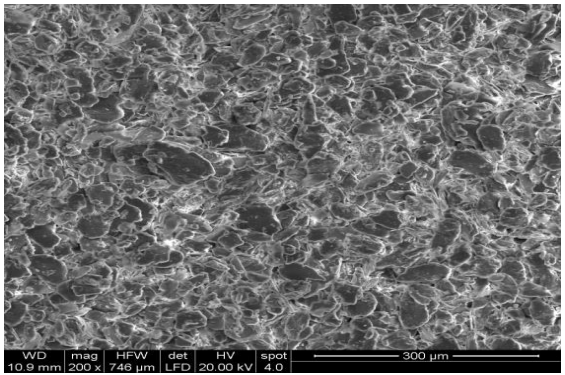


Comparison intalc 120LA /intalc 12060LA

LAMELLAR STRUCTURE



intalc 120LA



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LAMELLAR STRUCTURE

In the case of **intalc 12060LA and intalc 6020LA** we produce distinctive lamellar structures in a narrow range of grain sizes.

This enables the use of both intalc products as an alternative to mica/mica composites and leads to the following additional advantages:

- Considerably higher whiteness (FMY: up to 92%)
- Clearly lower oil absorption number
- Lower product volumes needed
- Improved dispersibility

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APPLICATION OF INTALC 12060LA & 6020LA

- Use in pasty and mineral facing/structural plasters, exterior paints.
- Use in reinforcing compounds with both organic and mineral binders
- Tile adhesives and joint sealants
- Easily grindable joint sealants and fillers
- Crack-bridging coatings
- Matting agents
- CO2-tight coatings (e.g. concrete repair systems)

Application & Testing of plaster

intalc 12060 LA

CONCLUDED TESTS

1. Filler material – Effect on cracks and “pinholes”
   - Formulation PM-0101: 5% Mica MC 100L-HAT and PM-0103: intalc 12060LA
   - Air drying (approx. 22°C)

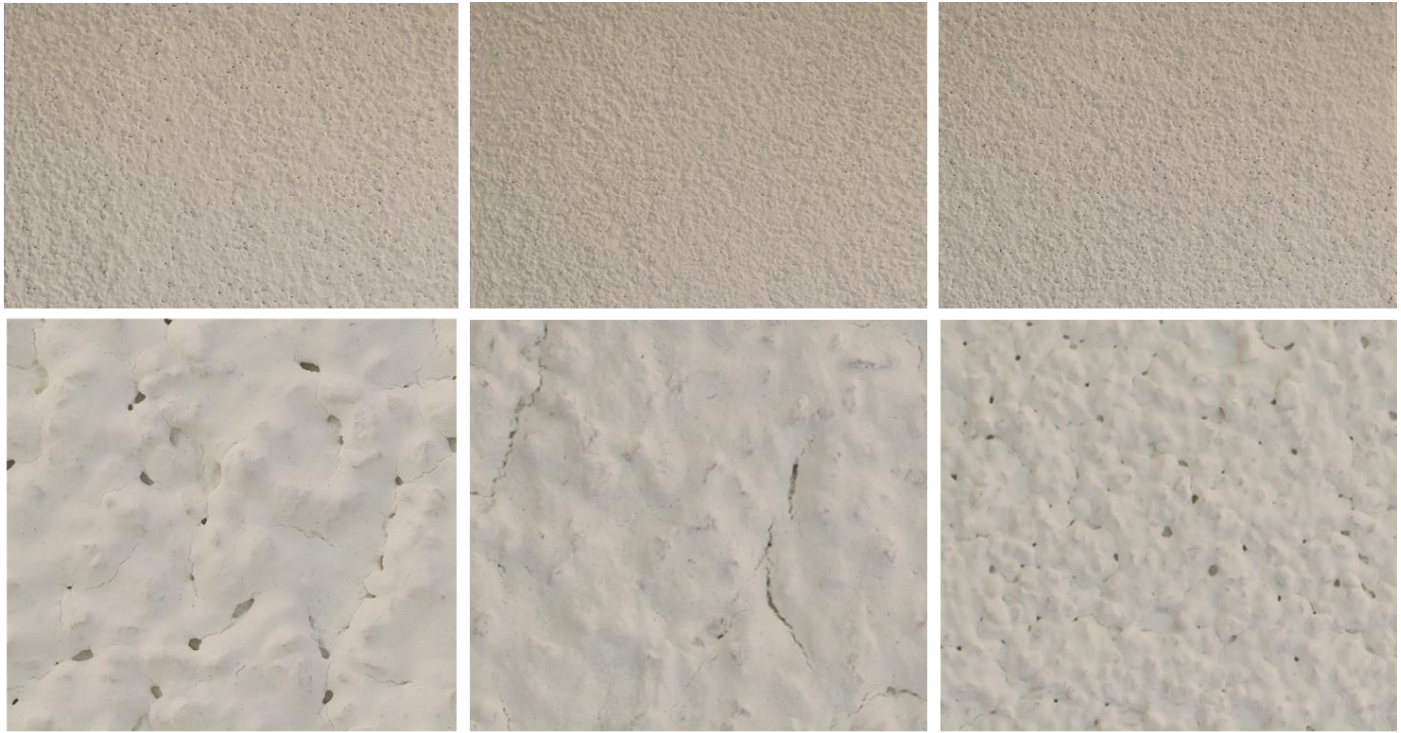
2. Filler material – **Colorimetric comparison**
   - Formulation PM-0101: 5% Mica MC 100L-HAT and PM-0103: intalc 12060LA
   - Air Drying (approx. 22°C) – White/Blue/Red/Green

LABORATORY FORMULATION

Product application		Pasty plaster/synthetic resin plaster-outdoor				
Formulation NR:		PM-0100KHM 2.0	PM-0101 KMP 2.0	PM-0102 KHP 2.0	PM-0103KHP 2.0	PM-0104KHP 2.0
Raw material		**Amount[%]**	**Amount[%]**	**Amount[%]**	**Amount[%]**	**Amount[%]**
Water		11.26	11.26	11.26	11.26	11.26
Cellulose		0.12	0.12	0.12	0.12	0.12
dispersing agent		0.2	0.2	0.2	0.2	0.2
in-can preservation		1	1	1	1	1
mix slightly, afterwards add:						
binder		10	10	10	10	10
hydrophobicity		0.4	0.4	0.4	0.4	0.4
mix slightly, afterwards add.						
natural fiber		0.4	0.4	0.4	0.4	0.4
natural fiber		0.35	0.35	0.35	0.35	0.35
synthetic fiber		0.15	0.15	0.15	0.15	0.15
mix slightly, afterwards add.						
defoamer		0.1	0.1	0.1	0.1	0.1
mix at 2000rpm and afterwards add one after another						
tio2		2	2	2	2	2
talc Intalc 120LA		**0**	**0**	**5**	**0**	**0**
mica Mica Celia 100L		**0**	**5**	**0**	**0**	**0**
talc Intalc 12060LA		**0**	**0**	**0**	**5**	**5**
Omyacarb 10GU		**5**	**0**	**0**	**0**	**0**
Omyacarb 40GU		**32**	**32**	**32**	**32**	**0**
Omyacarb 50GU		**0**	**0**	**0**	**0**	**32**
Carolith 1,0-1,5NM		3	3	3	3	3
Carolith 1,5-2,0NM		32	32	32	32	32
Dorkafil H		0.8	0.8	0.8	0.8	0.8
silica		0.04	0.04	0.04	0.04	0.04
while slightly mixing add:						
flim conservation		1	1	1	1	1
defoamer		0.18	0.18	0.18	0.18	0.18
stirring for two minutes at low speed to de-aerate the mixture						
	SUM:			**100**		

SURFACE COMPARISON

Air drying (approx. 22°C)



PM-0100 Standard | PM-0101 5% MC 100L-HAT | PM-0102 5% intalc 120LA

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SURFACE COMPARISON

Air drying (approx. 22°C)

PM-0100 Standard | PM-0103 5% intalc 12060LA | PM-0104 intalc 12060LA+ Omyacarb 50GU

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SUMMARY

Effect of the filling material on the surface

intalc 12060 LA – effect of the binding agent, cracks and pinholes

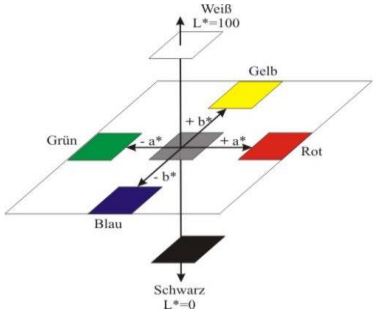
Formulation No.:	PM-0100 KHP 2.0K	PM-0101 KHP 2.0K	PM-0102 KHP 2.0K	PM-0103 KHP 2.0K	PM-0104 KHP 2.0K
Cracks	o	o	o	x	x
"Pinholes"	oo	x	oo	o	x
Note	Standard	5% MC 100L-HAT	5% intalc 120LA	5% intalc 12060LA	5% intalc 12060LA +Omyacarb 50GU

Rating System: oo strong o moderate x none

COLORIMETRIC COMPARISON

Air drying (approx. 22°C)

Effect on color tone and/or strength



PM-0101 PM-0103

Basis without TiO_2

Formulation No.:	PM-0101 KHP 2.0K	PM-0103 KHP 2.0K
L	86,58	87,24
a	0,02	0,13
b	5,04	3,79
dE CIE Lab		**1,42**
Note	5% MC 101L-HAT	5% intalc 12060LA

Basis +2% TiO_2

Formulation No.:	PM-0101 KHP 2.0K	PM-0103 KHP 2.0K
L	90,26	91,66
a	-0,44	-0,5
b	3,36	2
dE CIE Lab		**1,57**
Note	5% MC 101L-HAT	5% intalc 12060LA

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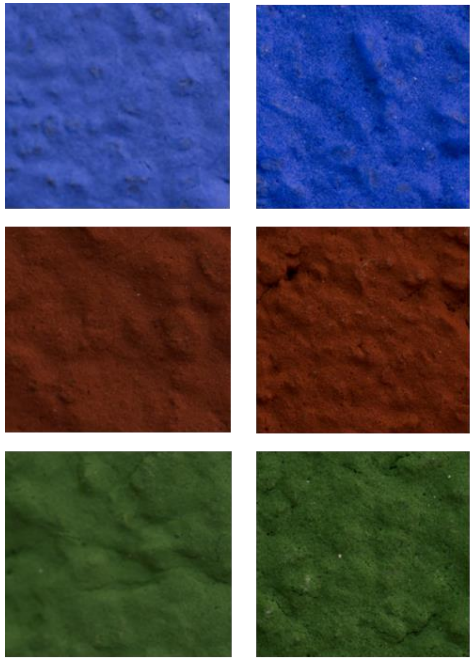
COLORIMETRIC COMPARISON

Air drying (approx. 22°C)

Effect on color tone and/or strength



Basis +2% Blue

Formulation No.:	PM-0101 KHP 2.0K	PM-0103 KHP 2.0K
L	56,13	49,56
a	2,48	7,56
b	-38,95	-47,02
dE CIE Lab		**11,58**
Note	5% MC 101L-HAT	5% intalc 12060LA

Basis +2% Red

Formulation No.:	PM-0101 KHP 2.0K	PM-0103 KHP 2.0K
L	37,86	34,51
a	28,66	28
b	18,67	18,36
dE CIE Lab		**3,42**
Note	5% MC 101L-HAT	5% intalc 12060LA

Basis +2% Green

Formulation No.:	PM-0101 KHP 2.0K	PM-0103 KHP 2.0K
L	52,17	47,29
a	-15,06	-15,42
b	18,56	18,16
dE CIE Lab		**4,9**
Note	5% MC 101L-HAT	5% intalc 12060LA

SUMMARY

- The cracking and formation of "pinholes" can be significantly reduced (similar types of mica). In combination with classified calcite (e.g. Omyacarb 50GU), these effects are even completely eliminated.
- Definitively more brilliant and stronger color tones (up to 25% higher) are being achieved in comparison to mica types.
- Titanium dioxide or colored pigment reduction due to the high degree of whiteness and the "classic" talc features.
- Visible "smoothing" of the plaster surface after processing / drying (on the topic of low level pollution and optics).
- Higher elasticity of the plaster (depending on the binding agent).
- Improvement of the processing properties of the plaster through the plate-let structure of the talc - it may be reduced or even eliminated through the use of organic modifier.
- Significantly better "coverage" of individual dark grains and background (gray cement putty, glue and reinforcing compounds)
  after rubbing the plaster.

WE ARE LOOKING FORWARD TO A SUCCESSFUL COOPERATION

WE HOPE YOU WILL ENJOY WORKING WITH OUR MINERALS

Your euroMinerals-Team

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