

PRODUCT INFORMATION SHEET

Grinding aid: HMPA 50

Order number: 349534-8

Scope of use

In X-ray fluorescence analysis, pulverizing of the samples, followed by pelletizing to obtain stable tablets, is a well-established routine procedure of sample preparation. The precision of XRF-analysis is very much influenced by the particle size of the ground sample and the homogeneity and stability of the tablet.

To improve the grinding process and as binder in the tablet additives are added to the sample. In the past these additives were very often powders based on wax and cellulose.

Especially for this application HERZOG has developed the product HMPA 50. These tablets lead to significant improvements in the following properties:

- ☐ Easy to handle automatic dosing systems
- ☐ Constant weight and easy to store
- ☐ Robust surface, minimum abrasion in dosing reservoirs
- ☐ Short grinding time and high fineness, ideal particle size distribution and homogeneity
- ☐ Minimum backing in the grinding vessel and therefore easy to clean
- ☐ Low heating up of the grinding vessel
- ☐ Higher sample throughput
- ☐ Stable tablets and therefore no contamination in the XRF-instruments
- ☐ Environment friendly and harmless concerning health
- ☐ Available from stock

These improved properties are confirmed in own tests and in reports from the steel-, cement- and glass-industry as well as from the mining industry.

Recommended sample types

The grinding aid can be used for various sample types. The amount of binder used depends on the application and analytical requirements.

The HMPA 50 is suitable for medium too difficult to press materials and provides a certain sealing against moisture uptake.

Cement	Limestone
Raw meal	Hydrates
Iron ore	Slags
Bauxite	Refractories
Gold ore	Clays
Catalyst	Soils
Ceramics	Matte
Clinker	Fly ash



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Trace elements

<i>Analysis 03/2021</i>			Detection limit	Method
Moisture	%	98,2	0,1	DIN EN 12880:2001
Aluminium	mg/kg	< 100	100	DIN ISO 22036:2009-06;L
Antimony	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;
Arsenic	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;
Lead	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;
Cadmium	mg/kg	< 0,1	0,1	DIN ISO 17294-2:2017-01;
Calcium	mg/kg	< 100	100	DIN ISO 22036:2009-06;L
Chrome (total)	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;
Cobalt	mg/kg	<1	1	DIN ISO 17294-2:2017-01;
Iron	mg/kg	< 100	100	DIN ISO 22036:2009-06;L
Copper	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;
Manganese	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;
Nickel	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;
Phosphor (total)	mg/kg	< 10	10	DIN ISO 22036:2009-06;L
Sulfur (total)	mg/kg	< 100	100	DIN ISO 22036:2009-06;L
Selenium	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;
Silicon	mg/kg	< 100	100	DIN ISO 22036:2009-06;L
Tellurium	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;
Thallium	mg/kg	< 0,1	0,1	DIN ISO 17294-2:2017-01;
Titanium	mg/kg	2,1	1	DIN ISO 22036:2009-06;L
Tungsten	mg/kg	< 10	10	DIN ISO 17294-2:2017-01;
Zinc	mg/kg	< 10	10	DIN ISO 17294-2:2017-01;
Tin	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;

Composition	Microcrystalline cellulose	Ratio	50%	CAS 9004-34-6
	Lico Wax C	50%		CAS 110-30-5
Export reference	HS Code:			39129080*
	*12/2021			
Physical properties	Tablet weight:		205 mg +/- 5 mg	
	Tablet height:		8.9 mm +/-0.1 mm	
	Tablet thickness:		4.0 mm +/-0.1 mm	
Reach declaration	Non hazardous substances			
Storage	Dry and no direct light			

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