

# PRODUCT INFORMATION SHEET

## Grinding aid: PE 190

Order number: 335766-2

### 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 20. 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 binder is used for difficult to press materials like samples with high silica content or similar. When using the binder, it needs to be considered that it tends to agglomerate at elevated grinding vessel temperature.

Softening point: 132°-138° C

High silica ores	Petroleum coke
Coal	Hydrates
Titanium oxide	Slags
Glass products	Refractories
Gold ore	Ceramics



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## Trace elements

<i>Analysis 03/2021</i>			Detection limit	Method
Remaining moisture	%	99,7	0,1	DIN EN 12880:2001
Aluminium	mg/kg	< 100	100	DIN ISO 22036:2009-06;L
Barium	mg/kg	< 1	1	DIN ISO 17294-2:2017-01;
Lead	mg/kg	< 1	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
Potassium	mg/kg	< 10	10	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;
Molybdenum	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	< 100	100	DIN ISO 22036:2009-06;L
Sulfur (total)	mg/kg	< 100	100	DIN ISO 22036:2009-06;L

<b>Composition</b>	Polyethylene wax PE 190	Ratio 100%	CAS 9002-88-4
<b>Export reference</b>	HS Code: 34049000* <i>*12/2021</i>		
<b>Physical properties</b>	Tablet weight: 205 mg +/- 5 mg Tablet height: 8.9 mm +/-0.1 mm Tablet thickness: 4.0 mm +/-0.1 mm		
<b>Reach declaration</b>	Non hazardous substances		
<b>Storage</b>	The grinding aid has to be stored under dry and cold (< 40°C) conditions. Avoid direct exposure to light. Incorrect storage will lead to yellow discoloring and the pills will become brittle.		

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