



## TECHNICAL INFORMATION

### Highly active bleaching earth

## TONSIL® Optimum 217

### Product description

TONSIL OPTIMUM 217 is a highly active bleaching earth for a special application, the production of paraffins and highly purified mineral oils. It is manufactured by acid activation of calcium bentonite and is free of elementary sulphur and sulfides.

TONSIL OPTIMUM 217 is a fine, greyish-white powder showing a highly porous inner structure and a multitude of acid sites upon its surface.

TONSIL OPTIMUM 217 possesses an outstanding adsorptive capacity for removal of polar compounds like colour bodies, traces of resins, electrolytes and acids from hydrocarbons.

TONSIL OPTIMUM 217 is mainly utilized for refining crude paraffin and for finishing insulating oils and white oils.

### Physical/chemical characteristics (typical product data)

Apparent bulk density	g/l	390
Free moisture (2 h, 110 °C)	%	~ 2
Loss on ignition (predried, 2 h, 1.000 °C) %		6 - 8
pH (10% suspension, filtered)	-	3,2
Acidity	mg KOH/g	0,6
Chloride content	mg Cl/g	0,5
Surface area (B.E.T.)	m <sup>2</sup> /g	260
Micropore volume		
0 - 80 nm	ml/g	0,36
0 - 25 nm	ml/g	0,30
0 - 14 nm	ml/g	0,25

### Filtration properties

TONSIL OPTIMUM 217 is a so-called normal grade showing a significantly longer filtration time compared to the corresponding fast filtering FF-grade.



### Particle size

Besides other methods, the particle size of TONSIL OPTIMUM 217 is determined by a sieve analysis of the dry powder. The following average values have been found for the various sieve fractions:

> 150 µm	%	1
> 100 µm	%	6
> 71 µm	%	14
> 63 µm	%	17
> 45 µm	%	29
> 25 µm	%	48

### Chemical analysis

TONSIL OPTIMUM 217 (dried at 110°C for 2 hours) has the following composition (average values):

SiO <sub>2</sub>	%	73
Al <sub>2</sub> O <sub>3</sub>	%	14,2
Fe <sub>2</sub> O <sub>3</sub>	%	2,7
CaO	%	0,2
MgO	%	1,1
Na <sub>2</sub> O	%	0,6
K <sub>2</sub> O	%	1,9
Loss on ignition	%	5,8
Total	%	99,5

### Further information and technical advice

All data mentioned in this leaflet are typical for this product and based on average values. Certain deviations can appear due to the processing of natural clays as a raw material. In no case are these values to be regarded as specifications. On request, certificates of analysis according to DIN (German standard regulations) for specified values of single properties can be agreed upon.

Detailed information concerning application and handling can be taken from our TONSIL booklet and from our material safety data sheet of TONSIL OPTIMUM 217.

If desired, our Technical Service Department will readily provide further support.

All information in this publication is in accordance with our present experience and knowledge. However, since we have no influence on the way in which our products are treated and used, we cannot take any responsibility in this respect. The user must assume responsibility himself for checking whether the products are suitable for the purpose and use proposed by him. All existing proprietary rights, laws and regulations shall be observed.