

**Mineralische Flammschutzmittel für**  
**Mineral flame retardants for**

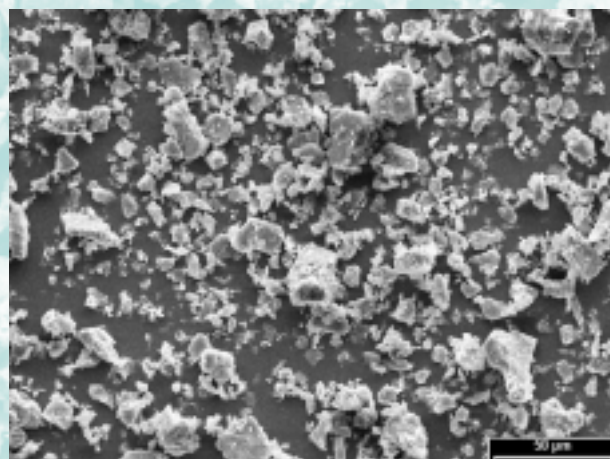
- **Bauindustrie / Construction industry**
- **Fahrzeugbau / Public transport**
- **Elektro-/Elektronikindustrie / Electronic industry**

**APYRAL®**

| <b>Durchschnittsanalyse / Typical analysis</b>           |                      | <b>APYRAL 16</b> | <b>APYRAL 24</b> | <b>APYRAL 32</b> |
|--|----------------------|------------------|------------------|------------------|
| Al (OH) <sub>3</sub> - Gehalt / -Content                 | [%]                  | 99.7             | 99.7             | 99.7             |
| Feuchte / Moisture                                       | [%]                  | 0.1              | 0.15             | 0.15             |
| Glühverlust / Loss on ignition                           | [%]                  | 34.6             | 34.6             | 34.6             |
| <b>Teilchengröße / Particle size</b>                     |                      |                  |                  |                  |
| (Laserbeugung) / (Laser diffraction)                     | D <sub>10</sub> [µm] | 1.5              | 1.3              | 1.2              |
|  | D <sub>50</sub> [µm] | 12               | 8                | 6                |
|  | D <sub>90</sub> [µm] | 40               | 20               | 16               |
| <b>Siebückstand / Sieve analysis</b>                     |                      |                  |                  |                  |
| (> 45 µm)  | [%]                  | 3                | 0.1              | 0.01             |
| <b>Spezifische Oberfläche / Specific surface area</b>    |                      |                  |                  |                  |
| (BET)  | [m <sup>2</sup> /g]  | 1.8              | 2.5              | 3.0              |
| <b>Schüttdichte / Bulk density</b>                       |                      |                  |                  |                  |
|  | [kg/m <sup>3</sup> ] | 750              | 650              | 640              |
| <b>Ölaufnahme / Oil absorption</b>                       |                      |                  |                  |                  |
|  | [ml/100g]            | 17               | 19               | 21               |
| <b>Weißgrad / Whiteness</b>                              |                      |                  |                  |                  |
| (Elrepho 457 nm)   | [%]                  | 93               | 94               | 95               |
| <b>Spezifische Leitfähigkeit / Specific conductivity</b> |                      |                  |                  |                  |
|  | [µS/cm]              | 50               | 60               | 60               |
| <b>Brechungsindex / Refractive index</b>                 |                      |                  |                  |                  |
|  |                      | 1.58             | 1.58             | 1.58             |
| <b>Härteindex (Mohs) / Mohs hardness</b>                 |                      |                  |                  |                  |
|  |                      | 2.5 - 3.5        | 2.5 - 3.5        | 2.5 - 3.5        |
| <b>Dichte / Density</b>                                  |                      |                  |                  |                  |
|  | [g/cm <sup>3</sup> ] | 2.4              | 2.4              | 2.4              |

**Produktvorteile / Product properties**

- **Breite Kornverteilung**  
*Broad grain size distribution*
- **Niedrige Viskosität**  
*Low viscosity*
- **Hohe Oberflächengüte**  
*High surface quality*
- **Gute Packungsdichte**  
*Good packing density*



Beispiele für den Einsatz von APYRAL 16, APYRAL 24, APYRAL 32 / Examples for the use of APYRAL 16, APYRAL 24, APYRAL 32



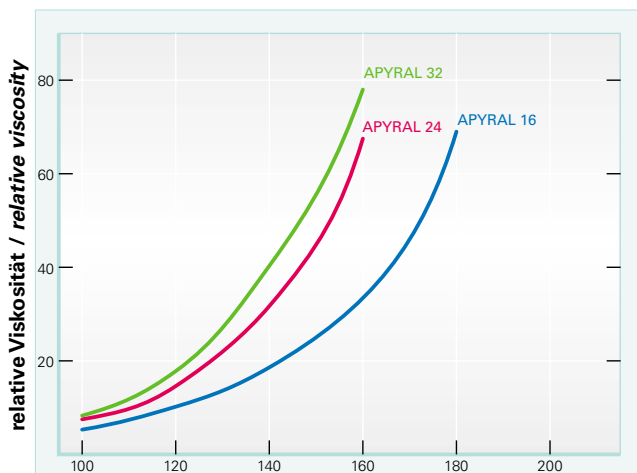
Kabelschacht / Cable conduit



Bauteile für den Elektrobereich  
Components for electronic industry

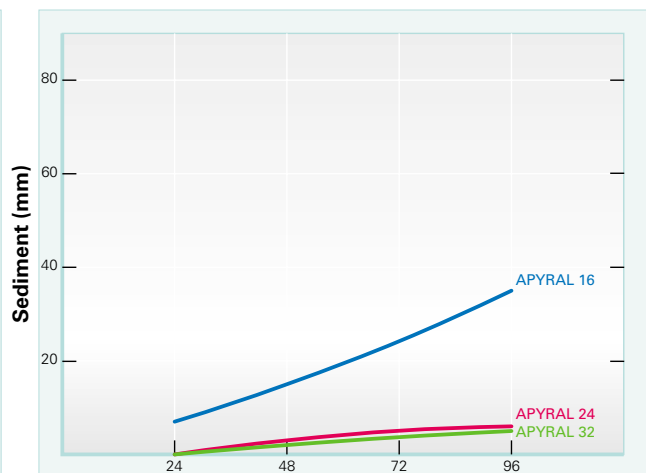
## Produkt-/Product-Information

Viskositätsverhalten in UP-Harz Palapreg P17  
Viscosity behaviour in UP-resin Palapreg P17



Teile ATH auf 100 Teile Harz / Parts of ATH in 100 parts of resin

Absetzverhalten in UP-Harz Palapreg P80 (Füllgrad 50%)  
Settling behaviour in UP-resin Palapreg P80 (Filling level 50%)



Zeitdauer / Period of time (h)

For further information, please contact:

**Nabaltec** AG  
P. O. Box 1860 · D-92409 Schwandorf  
Phone +49(0) 94 31 53 - 0  
Fax +49(0) 94 31 6 15 57  
www.nabaltec.de

### Business Unit Flame Retardants

Phone +49(0) 94 31 53-4 62/4 58/4 67  
fillers@nabaltec.de

All data listed in this brochure are reference values and subject to production tolerances. These values are exclusive to the product description and no guarantee is placed on the properties. It remains the responsibility of the users to test the suitability of the product for their application.