

**Vinylsilan behandelte mineralische Flammenschutzmittel für**  
**Vinyl silane treated mineral flame retardants for**

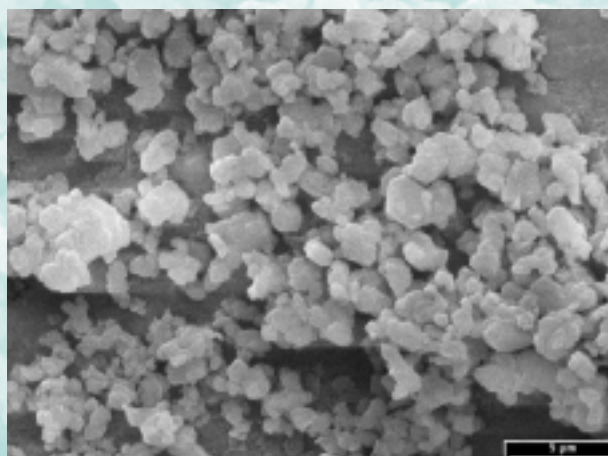
- **Kabelindustrie / Wire and cable industry**
- **Elektro-/Elektronikindustrie / Electronic industry**
- **Bauindustrie / Construction industry**

**APYRAL®**

<b>Durchschnittsanalyse / Typical analysis</b>		<b>APYRAL 40 VS1</b>	<b>APYRAL 60 VS1</b>
Al (OH) <sub>3</sub> - Gehalt / -Content	[%]	98.5	98.5
Feuchte / Moisture	[%]	0.2	0.2
Glühverlust / Loss on ignition	[%]	34.6	34.6
<b>Teilchengröße / Particle size</b>			
(Laserbeugung) / (Laser diffraction)	D <sub>10</sub> [µm]	0.6	0.5
	D <sub>50</sub> [µm]	1.5	1.3
	D <sub>90</sub> [µm]	3.6	3.0
<b>Siebrückstand / Sieve analysis</b>			
(> 45 µm)	[%]	0.05	0.05
<b>Spezifische Oberfläche / Specific surface area</b>			
(BET)	[m <sup>2</sup> /g]	3.5	6.0
<b>Schüttdichte / Bulk density</b>			
	[kg/m <sup>3</sup> ]	350	250
<b>Ölaufnahme / Oil absorption</b>			
	[ml/100g]	33	45
<b>Weißgrad / Whiteness</b>			
(Elrepho 457 nm)	[%]	91	91
<b>Spezifische Leitfähigkeit / Specific conductivity</b>			
(Unbehandelt / Non-treated)	[µS/cm]	30	50
<b>Brechungsindex / Refractive index</b>			
		1.58	1.58
<b>Härteindex (Mohs) / Mohs hardness</b>			
		3	3
<b>Dichte / Density</b>			
	[g/cm <sup>3</sup> ]	2.4	2.4

**Produktvorteile / Product properties**

- **Hohe Feinheit / Very fine particles**
- **Hohe Hydrophobizität / High Hydrophobicity**
- **Geringe Wasseraufnahme**  
**Low water absorption**
- **Einfache Handhabung / Easy handling**
- **Hohe Kriechstromfestigkeit**  
**High tracking resistance**



**Beispiele für den Einsatz von APYRAL 40 VS1, 60 VS1 / Examples for the use of APYRAL 40 VS1, APYRAL 60 VS1**



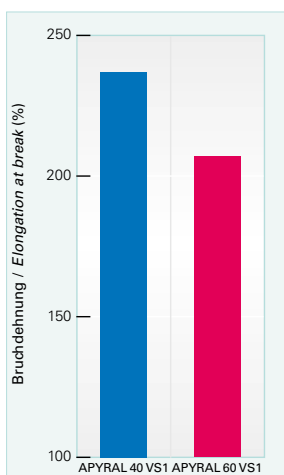
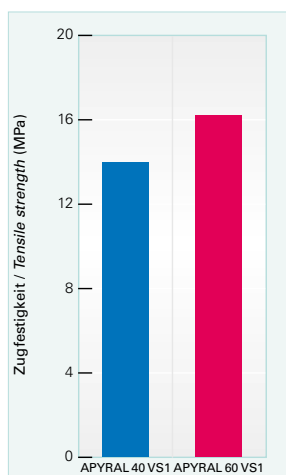
**Halogenfrei flammgeschützte Kabel**  
*Halogen free flame retardant cables*



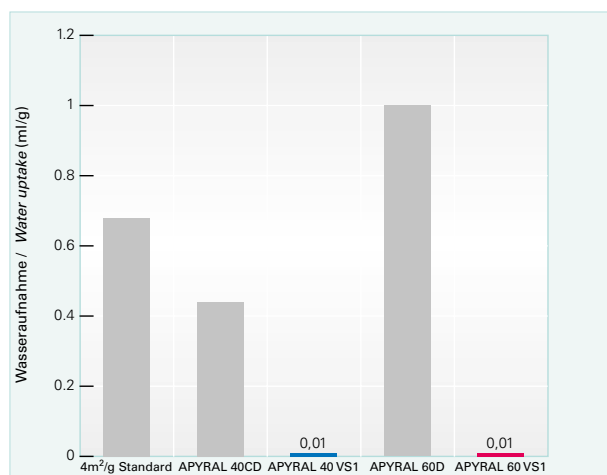
**Hochspannungsisolatoren auf Basis EPDM oder Silicon**  
*High Voltage Insulator based on EPDM or silicone*

## Produkt- / Product-Information

**Mechanische Eigenschaften eines HFFR-EVA Kabelcompounds**  
*Mechanical properties of an HFFR-EVA cable compound*



**Gesättigte Füllstoffwasseraufnahme nach einer Stunde (Test nach Baumann)**  
*Maximum water uptake of filler after one hour (Test according to Baumann)*



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.