

PK:

Kunde/*Customer:*

Datum: 45/15

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**Ausführung: Core design:**

Ringbandkern *Toroidal core:*

Kern für stromkomp. Drossel  
*Core for common mode choke*

**Maßbild: Drawing:**

ohne Maßstab / *without scale*  
 Maße in mm / *Dimensions in mm*

**Nennmaße: / Nominal Dimensions:**

100 x 80 x 25 mm

**Legierung: / Core Material:**

VITROPERM 500 F

**Fixierung: / Type of Finish:**

Fix 022

(Kunststoffrog: Rynite® FR530  
 / Silikonkautschuk /  
*Plastic box: Rynite® FR530 / silicon  
 rubber*)

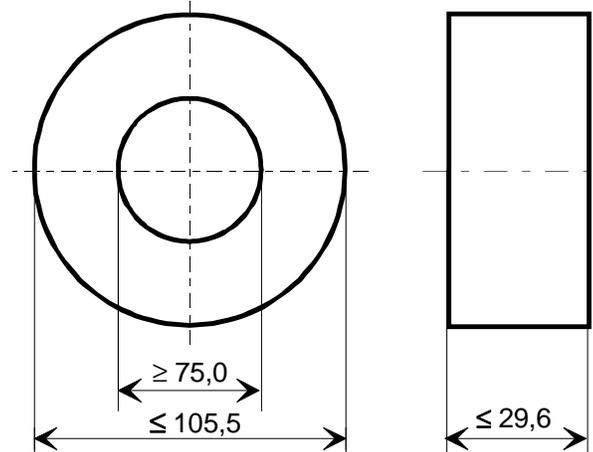
**Bezugswerte: /**

**Rated Dimensions:**

$A_{Fe} = 1,9 \text{ cm}^2$

$l_{Fe} = 28,3 \text{ cm}$

$m_{Fe} = 395 \text{ g}$



Rev.

**Endprüfung: / Final Inspection:** (100% Prüfung, AQL...: IEC 410 / DIN ISO 2859)

**1. Magnetische Prüfung (AQL 0,65) / Magnetical test (AQL 0,65)**

Prüfung des  $A_L$ -Wertes im Reihenersatzschaltbild gemäß A60092-Y3022-K009 /  
*Test of  $A_L$ -value in series mode according to A60092-Y3022-K009*

Induktivitätsprüfung ohne Gleichstromvormagnetisierung / *Inductance test without DC-magnetisation*

1.1 Einstellwerte / *Setting values:*  $I_{eff} \times N = 60 \text{ mA}$   
 $f = 10 \text{ kHz}$

Prüfwert / *Specified value:*  $42,2 \mu\text{H} \leq A_L \leq 81,7 \mu\text{H}$  (entspr. / *corr.*  $50000 \leq \mu_3' \leq 96700$ )

1.2 Einstellwerte / *Setting values:*  $I_{eff} \times N = 60 \text{ mA}$   
 $f = 100 \text{ kHz}$

Prüfwert / *Specified value:*  $12,7 \mu\text{H} \leq A_L \leq 25,3 \mu\text{H}$  (entspr. / *corr.*  $15000 \leq \mu_3' \leq 30000$ )

Herausgeber	Bearbeiter	KB-PM			Datum	freigegeben
KB-E IN	Kleespies	Klinger			10.11.2015	Petzold



**Spezifikation für weichmagnetische Kerne**  
*Specification for Soft Magnetic Cores*

**S-No.:**  
T60006-L2100-  
**V082-01-**

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Hinweise / *Remarks:*

1. Due to the very special physical properties of Rynite ® FR530 with respect to temperature and humidity careful attention has to be paid to the following issue:

As a thermoplastic polyester resin, Rynite ® FR530 will hydrolyze in hot water or at elevated temperature together with excessive humidity (e.g. 85 °C / 85 % r.h.) that impacts physical properties of the material. The rate of the hydrolysis depends on exposure conditions; primarily time and temperature. It is recommended not to use Rynite ® FR530 in an environment with continuous exposure to water at temperatures above 50°C. For details see 'DuPont Rynite ® PET Design Guide - Module IV' page 38 'Chemical Resistance' (copy of Table 16 on page 3).

**Table 16**  
**Hydrolysis Resistance of Rynite® 530 at**  
**100% RH; Times to Reach One-Half of**  
**Initial Property Value**

<b>Tensile Strength</b>	
<b>Temperature</b>	<b>Time (Weeks)</b>
85°C (185°F)	4
70°C (160°F)	22
55°C (130°F)	100
40°C (105°F)	>104

<b>Unnotched Impact</b>	
<b>Temperature</b>	<b>Time (Weeks)</b>
85°C (185°F)	1
70°C (160°F)	6
55°C (130°F)	38
40°C (105°F)	60

As an effect of hydrolytically degradation mechanical strength will degrade, and if there is mechanical stress on the material, like a tense winding, there is a risk that the material will break.

By using 'magnetic cores with core boxes of Rynite ® FR530' this effect has to be taken into account by the user and carefully checked in the final application.

VAC may not take any responsibility for any malfunction due to incorrect handling or use of magnetic cores with core boxes of Rynite ® FR530.

2. Materialnummer / *Part No.:* 97000461