

# Typische magnetische Eigenschaften

Werkstoff	Remanenz $B_r$		Koerzitivfeldstärke $H_{cB}$		Koerzitivfeldstärke $H_{cJ}$		Energiedichte (BH) $_{max}$		Max. Anwendungs- temperatur $T_{max}$
	T	kG	kA/m	kOe	kA/m	kOe	kJ/m <sup>3</sup>	MGOe	°C
N-27SH	1,02-1,06	10,2-10,6	765-810	9,6-10,1	≥ 1600	≥ 20	200-216	25-27	150
S-28/180	1,05-1,08	10,5-10,8	790-815	9,9-10,2	> 2160	> 27	208-224	26-28	180
N-30 SH	1,08-1,12	10,8-11,2	810-850	10,1-10,6	≥ 1600	≥ 20	224-240	28-30	150
N 32 SH	1,12- 1,15	11,2-11,5	815-870	10,2-10,8	≥ 1600	≥ 20	239-255	30-32	150
S 32/180*	1,13-1,17	11,3-11,7	830-880	10,4-11,0	> 1760	> 22	248-254	31-33	180
N-35	1,17-1,21	11,7-12,1	865-910	10,8-11,4	≥ 1040	≥ 13	264-280	33-35	80
N-35H	1,17-1,21	11,7-12,1	865-910	10,8-11,4	≥ 1360	≥ 17	264-280	33-35	120
N-35 SH	1,17-1,21	11,7-12,1	865-910	10,8-11,4	≥ 1760	≥ 22	264-280	33-35	150
S-35/150	1,17-1,20	11,7-12,0	865-905	10,8-11,3	≥ 1600	≥ 20	264-280	33-35	150
N-40	1,26-1,29	12,6-12,9	940-960	11,8-12,0	≥ 1040	≥ 13	304-320	38-40	80
N-40 H	1,26-1,29	12,6-12,9	940-960	11,8-12,0	≥ 1360	≥ 17	304-320	38-40	120
N-42	1,30-1,33	13,0-13,3	960-990	12,0-12,4	≥ 1040	≥ 13	320-336	40-42	80

\*) Neuentwicklung, Muster ab Herbst 2001 erhältlich

BEC 01 Ausgabe Dt. 02 / Okt. 01

## NdFeB gesinterte Dauermagnetwerkstoffe

Freigabebestätigung  
Release note

Musterart / Type of sample

Entwicklungsmuster  
development sample

Vormuster  
pilot production sample

Änderungsmuster  
sample after modification

Serienmuster  
sample of mass production

Kunde; Adresse  
Customer; address **R6 Conrad GmbH**

Blatt page **1** von of **4**

Bestell- / Abruf Nr. Order No. <b>4600004044</b>	Bestell- / Abruf Datum Order date <b>16-Nov-2004</b>	Anzahl der Muster number of samples <b>125PCS/ 6000PCS</b>	Werkstofftyp description / quality type <b>N35</b>
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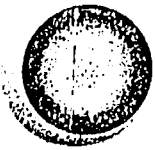
Sachnummer / Benennung Part No. / Drawing No. <b>/</b>	Bericht-Nr. report No. <b>2004 12 021</b>	Ausstellungsdatum date of issue <b>06-Dec-2004</b>
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Pos.	Merkmal Characteristic	Sollwert Dimension & toler.	Istwert (Lieferant) Result Supplier			CP	CPK	Istwert Abnehmer Result Customer
			Max.	Min.	Average			
1	length	/						
2	width	/						
3	thickness	22.00 <sup>+0.05</sup> / <sub>-0.05</sub>	22.04	22.00	22.01	1.66	1.25	
4	outer dia	5.00 <sup>+0.1</sup> / <sub>-0.1</sub>	5.03	4.98	5.00	2.26	2.17	
5	inner dia	/						
6	◎	/						
7	⊥	90 ± 0.5°	90.3°	90.1°	90.22°			
8	//	0.05	0.05	0.01	0.026			
9								

Bemerkung Lieferant / remarks Supplier Charge Nr. / Charge No. <b>NI+CU+NI Coated</b> Magnetisiert / magnetized <input checked="" type="checkbox"/> Ja / Yes <input type="checkbox"/> Nein / No Beschichtet / coating <input checked="" type="checkbox"/> Ja / Yes <input type="checkbox"/> Nein / No	Bemerkung Kunde / remarks Customer
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Bestätigung Sampling is conform to the customer specification <b>passed</b>	Entscheidung / decision
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Datum, Unterschrift / date, signature <b>6.12.2004</b> <i>[Signature]</i>	Datum, Unterschrift / date, signature <b>Liam Men...</b>
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Einzelprüfergebnis an Mustern  
Sample report Test results

B.E.C. GESELLSCHAFT FÜR  
PRODUKT-MANAGEMENT  
MBH

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page .....2...

VON  
of ...4.....

Sample No.	Length millimeters	Width millimeters	Thickness millimeters	outer diameter millimeters	inner diameter millimeters				
1			22.00	4.98					
2			22.00	5.03					
3			22.01	5.02					
4			22.02	5.02					
5			22.01	4.99					
6			22.03	5.02					
7	/	/	22.00	5.02	/	/	/	/	
8	/	/	22.04	5.03	/	/	/	/	
9	/	/	22.04	4.99	/	/	/	/	
10			22.01	5.02					
11			22.00	5.01					
12			22.00	5.01					
13			22.00	5.00					
14			22.02	4.99					
15			22.00	4.98					

II/C=0

# Kontrollplan Control Plan

B.E.C. GESELLSCHAFT FÜR  
PRODUKT-MANAGEMENT

Kunde; Adresse Customer, address						Blatt von page 3 of 4			
Bestell- / Abruf Nr. Order No.		Bestell- / Abruf Datum Order date		Anzahl der Muster number of samples		Werkstofftyp description / quality type			
4600004044		16-Nov-2004		125PCS/ 6000PCS		N35			
Sachnummer / Benennung Part No. / Drawing No.				Bericht-Nr. report No.		Ausstellungsdatum date of issue			
				2004 12 021		06-Dec-2004			
Nr. No.	Charakteristik Characteristics	Toleranz Tolerances	Zeitpunkt der Kontrolle Phase	Prüfbedingungen Frequency	Auswahlverfahren Modality	Prüfverfahren Method	Dokumentation Recording	Reaktion bei Fehler Reaction if out of control	
1	OUT. DIA 5	+0.1 -0.1	P.F.S	II C=0	System- atically	Calipers	Paper/ date	Reject	
2	INS. DIA /		P.F.S	II C=0	System- atically	Calipers	Paper/ date	Reject	
3	THICKNESS 22	+0.05 -0.05	P.F.S	II C=0	System- atically	Calipers	Paper/ date	Reject	
4	⊥ 90±0.5°		P.F.	II C=0	System- atically	Micro- meter	Paper/ date	Reject	
5	// 0.05		P.F.	II C=0	System- atically	Micro- meter	Paper/ date	Reject	
6	◎ /		P.F.	II C=0	System- atically	Micro- meter	Paper/ date	Reject	
7	Appearance	Visual	P.F.	100%	System- atically	Visual	Paper/ date	Reject	
8	Br(mT)	1218~ 1206	I.P.F.	Sampling	Randomly		Curve	Reject	
9	iHc(KA/m)	1043~ 1019	I.P.F.	Sampling	Randomly	Perma- graph		Reject	
10	(BH)max (KJ/m <sup>3</sup> )	285~ 279	I.P.F.	Sampling	Randomly			Reject	
11	Gauss(Gs)	/	I.P.F.	/	System- atically	Gauss- meter	Paper/ date	Reject	

I = RAWMATERIAL INCOMING CONTROL  
F = FINAL PRODUCTION CONTROL

P = PROCESS CONTROL  
S = STATISTICAL CONTROL



Customer .....  
Sample 5.822  
measured at room temperature  
before cut

Date 6.12.2004  
Inspector Wang/B

Remarks .....

Material N35  
Br 1212 mT  
 $H_{ca}$  931 kA/m  
 $H_c$  1031 kA/m  
 $(BH)_{max}$  282 kJ/m<sup>3</sup>  
 $T_{max}$  .....

$B=0$

$Nn=0.66$

0.5

0.33

$B \times H_{max} [kJ/m^3]$

- 320
- 300
- 280
- 260
- 240
- 220
- 200
- 180
- 160
- 140
- 120
- 100
- 80
- 60

$J [T]$

1.6

1.4

1.2

1.0

0.8

0.6

0.4

0.2

polarization

$H [kA/m]$

-1600

-1200

-800

-400

$H [kOe]$

-20

15

-10

-5 field intensity