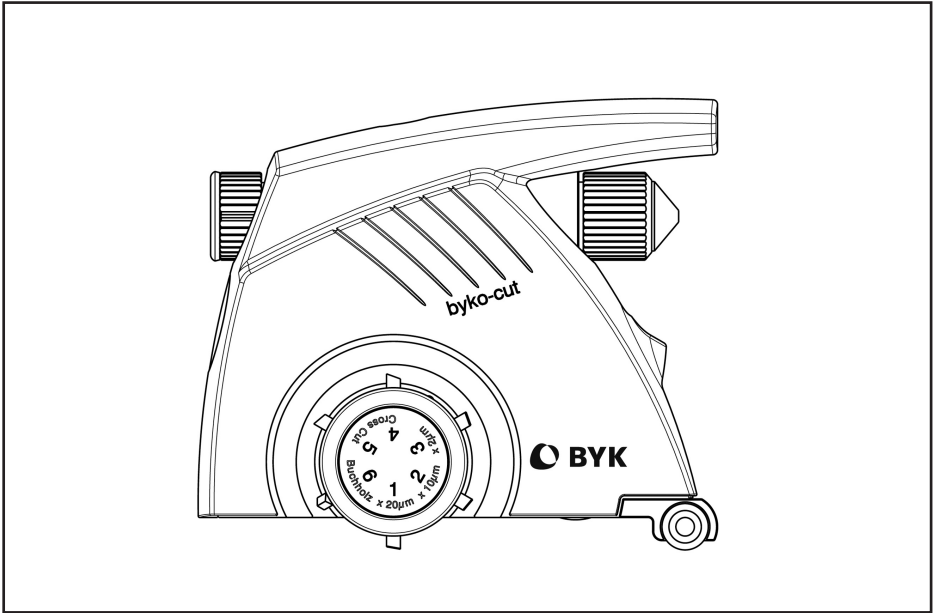


Measure what you see.

byko-cut universal



Manual



Patent pending

183 019 275 - 0901

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1. System description

The byko-cut universal is a universal testing instrument to measure the film thickness, adhesion and hardness of paints and coatings on metal and non-metal substrates. The surface is cut according to the related standards or respectively indented and afterwards evaluated under 60 degree illumination.

According to Standards: ASTM D 3002, ASTM D 3359, DIN 50986, DIN 53151, DIN EN ISO 2409, DIN EN ISO 2815

2. Safety instructions



- Do not touch the cutting tools as the sharp edges may cause a laceration.
- Any damage or injury caused by ignoring the safety instructions and general information the manufacturer is not liable.
- If the instrument can not be used safely, discontinue using the instrument and place it in a secure location. Do not use the instrument if it is visually damaged or does not work anymore .
- Do not perform any electrical or mechanical repair, the instrument may only be opened by a trained service technician. Please contact our technical service personnel for assistance.
- If the instrument will not be used over a longer period, please take out the battery to avoid leakage and destruction of the instrument.

3. General information

- Please only use the original accessories available for the instrument. Inappropriate use of the accessories results in lost of the warranty.
- If used appropriately no hazard is to be expected either mechanically or electrical.
- The instrument consists of sensitive optical, mechanical and electronic precision parts. Do not drop and avoid stress due to vibration and shock.



This symbol means: Do not dispose this product together with your household waste. Please refer to the information of your local community or contact our dealers regarding the proper handling of end-of-life electric and electronic equipment.

Recycling of this product will help to conserve natural resources and prevent potential negative consequences for the environment and human health caused by inappropriate waste handling.



This symbol points out to important additional information



This symbol warns of danger of injury

4. Delivery Content included

Case

PG-3430, byko-cut universal

or

PG-3431, byko-cut universal

PG-3421 blade No. 1

PG-3422 blade No. 2

PG-3423 blade No. 3

PG-3432, byko-cut universal, without blades

or

PG-3433, byko-cut universal, without blades

804960 allen key 1.3 mm

802246 allen key 2.0 mm

802275 black marker

183019780V Protective cap

802276 battery 1.5 V

5. Start-up and power-supply

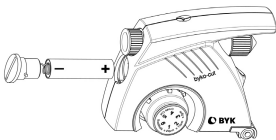
Before starting, read the manual and follow the safety instructions and general information. Unpack the instrument and check the delivery contents for completeness (Please refer to chapter „delivery contents“).

Before starting place the battery in the instrument. The instrument is powered by a 1.5 V Mignon (alkaline)battery (type AA)

Only use Alkaline batteries !

To assure the instrument is always ready to use, a replacement battery should be available.

5.1 Battery installation



To insert or replace the battery, open the cover by turning it to the left or right with a coin by 90 degrees. Turn the instrument with the opening upside down and let the battery slide to your hand. Insert the new battery with the plus pole first into the battery compartment and close it by turning the lid by 30 degrees to the right.

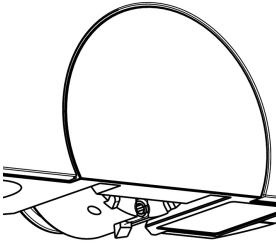


Caution: Batteries and rechargeable batteries are special waste and must not be disposed of with household waste. Make certain to observe the disposal instructions of the battery or rechargeable battery manufacturer.

5.2 Installation of cutting tools

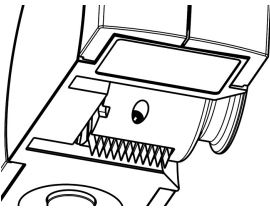
The byko-cut universal comes complete with three cutting tools for film-thickness (tools 1-3). The optional tools for cross-cut can be mounted to the related supports (No. 4-6) of the revolver head as well as the indentation tool for Buchholz hardness to be used in conjunction with the additional weight.

5.2.1 Cutting tools No. 1-3



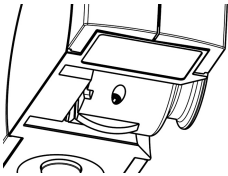
Are fixed with hexagon socket screws beside the particular support of the revolver head. To insert or replace the cutting tool, loosen the screw until the tool can easily be moved in the support. Insert the tool and push it against the rear of the support and tighten the screw (see Accessories and spare parts).

5.2.2 Multi-cut tool for cross-cut



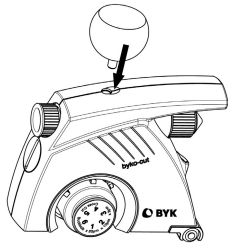
Cross-cut 1mm, 1.5 mm and 2mm tools can be used. The screw holding the cutter is beside the holder. To exchange the tool, loosen the screw until the cutter can be pulled out. Insert a new tool and push it against the rear of the mount, fasten the screw (see Accessories and spare parts).

5.2.3 Indentation tool for Buchholz hardness



To exchange the tool, loosen the screw until the cutter can be pulled out. Insert a new tool and push it against the rear of the mount, fasten the screw (see Accessories and spare parts).

5.2.4 Attachment of Additional Weight for Buchholz indentation test



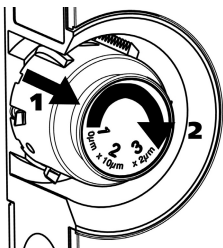
For Buchholz Indentation test the tool must press with a force of 500 g perpendicular onto the surface. Therefore an additional weight is attached to the byko-cut.

5.3 How to set up the cutting tools in the revolver head

Use the allen key 1.3 mm for adhesion tools Nr. 4-5 and for Buchholz indentation Nr. 6 for the other cutting tools Nr 1-3 use allen key 2 mm.

Very important: loosen the screw and add the cutting tool inside the support and check that the highest tip of the tool is close to the wheel side.

5.3.1 Adjusting the revolver head



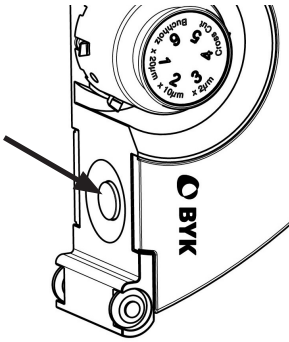
To adjust the revolver head

1. pull the holder
2. Turn it to left or right.

Once in the proper positions the holder locks in place.

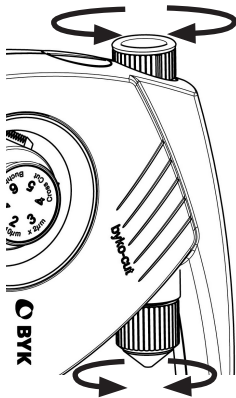
6. Operation

6.1 Microscope

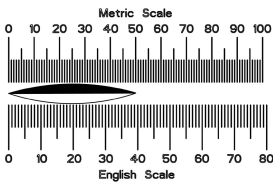


Turn the illumination on by pressing the switch once. To turn it off press the switch again.

Note! The illumination does not switch off automatically if the light is not switched of the batteries will empty



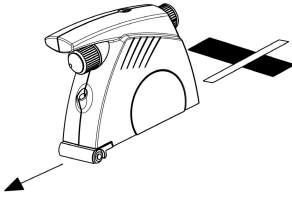
The microscope view can be sharpened by turning the objective lens or the eye-piece adjustment ring. For sharpening the scale view, turn the eye-piece ring to adjust the object view turn the objective lens.



A micrometer/mils scale is built in the microscope, to measure the dimensions of paint flaws and intersection.

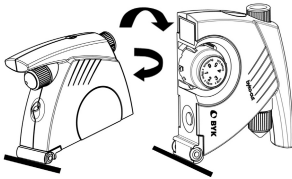
2000 microns in 100 line markings.

6.2 Film thickness



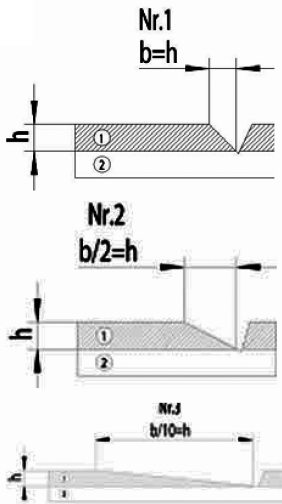
First trace a color-lined using a marking pen. Choose the appropriate cutting tool and create a V-shaped cut through the coating to the substrate. The guiding wheels assure a perpendicular cut and prevent the cutting tool from tilting. For extremely hard or brittle substrates often multiple cuts are necessary to determine the optimal indentation force and drawing speed.

6.2.1 Cut finder

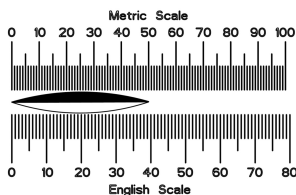


Before lifting mark the wheeled edge on the coating then turn the byko-cut until the lens is above the cut and the wheeled edge sits exactly at the marking. The cut appears under the microscope..

6.2.2 Determination of Film thickness



Switch on the illumination. The microscope eye-piece shows a 2mm long micron/mils scale with 100 line markings, the cut appears under the microscope according to the pictures, depending on the cutting angle. Place the Zero mark at the start of the cut and count the units.



Scale of byko-cut universal

Tool No.	Cutting Angle*)	Range in Mils	1 Line Increment in Mils	Range in Microns	1 Line Increment in Microns	Accuracy in Microns (±1 increment)**)
1	45°	0 – 80	1	0 – 2000	20	40
2	26.6°	0 – 40	0.5	0 – 1000	10	20
3	5.7°	0 – 8	0.1	0 – 200	2	4

*) Angle measured from sample plain.

***) For film thickness smaller 15 µm, accuracy plus 1.5 µm Additional cutting tools are available for very thin or very thick coatings.

6.2.3 How to do the measurement for film thickness

Step 1: Marking

Make a perpendicular mark to the scratch direction with a black marker on the panel

Step 2: Cutting

Select the cutter based on predicted film thickness and make a vertical cut.

Step 3: Adjustment of microscope

- Place the microscope of the byko-cut Universal over the cut
- Adjust the top lens for focusing the scale
- Adjust the lower lens for focusing the surface

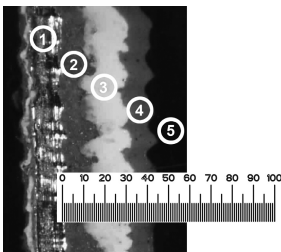
Step 4: Result

Count the line increments and multiply them with the appropriate factor given in the conversion table.

Determination according to ASTM method uses the mils scale

The cut is usually frayed. To increase the precision, measure several parts of the cut and calculate an average. For best results the individual coating layers should have a different color.

The following film thickness calculation example is using cutting tool #3.



- ① = Substrate
- ② = E-coat ~ 12 x 2 = 24 μm
- ③ = Primer ~ 20 x 2 = 40 μm
- ④ = Base coat ~ 10 x 2 = 20 μm
- ⑤ = Black marker

Total Film Build: ~ 48 μm

6.3 Cross-Cut Adhesion according to DIN EN ISO and ASTM



In the revolver head optional cutting tools for cross-cut can be inserted. The cutters are mounted as described in chapter 5.2.

Important ! The sharp tip is facing toward the cutting direction, the tool's sharp tip is used for the cut. Evaluation is performed according to the standard ranges in DIN ISO or ASTM.

Standards:

ASTM D 3002, D 3359, DIN EN ISO 2409

The standards prescribe the following spaces between two cuts:

Film Thickness	Cutter Spacing
0-60 μm	1 mm
60-120 μm	2 mm
> 120 μm	3 mm

The byko-cut is capable of work with 1mm, 1.5 mm and 2mm cutters.

The 3mm cutting tool is too wide and does not fit into the revolver head.

Use

1. Make a lattice pattern in the film with appropriate tool, cutting to the substrate
2. For the DIN method brush the cut area in the diagonal direction five times, for the ASTM method place the Permacel tape over the cut and remove the tape.
3. Examine the grid area using the microscope

6.3.1 How to measure adhesion

Tools Nr 4-5 for adhesion test have to be ordered separately.

How to evaluate the adhesion according to standards?

The **ASTM method D-3359** mentions

1 mm cutter for film up to 2 mils (50 μ m)

2 mm cutter for films between 2 – 5 mils (125 μ m)

The **DIN EN ISO 2409** prescribes that the numbers of cuts shall be 6 and the cut in each direction must be same according to the film thickness and the kind of coating used as given as shown below:

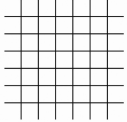
0 - 60 μ m 1 mm space for hard coating

0 - 60 μ m 2 mm space for soft coating

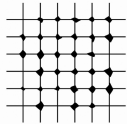
61 - 120 μ m 2 mm space for hard or soft coating

121 - 250 μ m 3 mm space for hard or soft coating

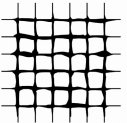
6.3.2 Cross-Cut Results



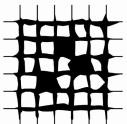
ISO Class: 0 ASTM Class: 5 B The edges of the cuts are completely smooth, none of the squares of the lattice is detached.



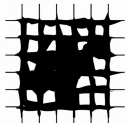
ISO Class: 1 ASTM Class: 4 B Detachment of small flakes of the coating at the intersections of the cuts. A cross-cut area not significantly greater than 5 % is affected.



ISO Class: 2 ASTM Class: 3 B The coating has flaked along edges and/or at the intersections of cuts. A cross-cut area significantly greater than 5 %, but not significantly greater than 15 % is affected.



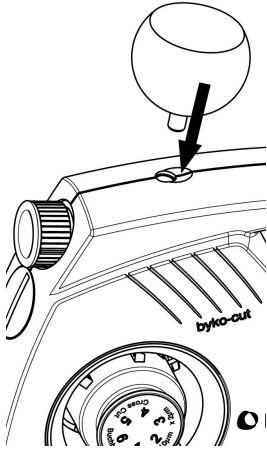
ISO Class: 3 ASTM Class: 2 B The coating has flaked along the edges of the cuts partly or wholly in large ribbons, and/or it has flaked partly or wholly on different parts of the squares. A cross-cut area significantly greater than 15 %, but not significantly greater than 35 % is affected.



ISO Class: 4 ASTM Class: 1 B The coating has flaked along the edges of cuts in large ribbons and/or some squares have detached partly or wholly. A cross-cut area significantly greater than 35 %, but not significantly greater than 65 % is affected.

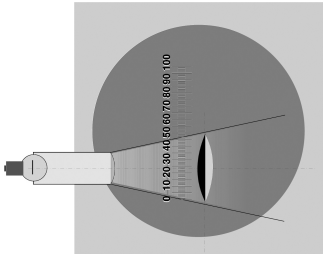
ISO Class: 5 ASTM Class: 0 B Any degree of flaking that cannot even be classified by classification 4; i.e. an affected area greater than 65 %.

6.4 Buchholz Indentation



With the optional indentation tool and weight for Buchholz hardness the byko-cut can be used for the test according to DIN 53153. The tool is mounted to the appropriate support and the weight placed on the top of the instrument (see chapter 5.2.4) Place the wheels on the sample and tip the tool onto the surface. After 30 seconds the tool is lifted from the surface and the cut is measured through the microscope. Before lifting the byko-cut mark the wheeled edge on the coating (refer to chapter 6.2.1) then turn the byko-cut until the lens is above the cut and the wheeled edge sits exactly at the marking. The cut appears under the microscope. The table shows the values for indentation.

6.4.1 Indentation resistance



Fullscale is 2 mm length

Indentation resistance

indentation length (mm)	indentation resistance (a_B)	error value max. ($\triangle a_B$)	under limit (a_B) min.	upper limit (a_B) max	deth of impression* (μm)	minium coat thickness (μm)
0,7	142,9	20,4	122,4	163,3	4	12
0,8	125,0	15,6	109,4	140,6	5	15
0,9	111,1	12,3	98,8	123,5	7	20
1,0	100,0	10,0	90,0	110,0	8	20
1,1	90,9	8,3	82,6	99,2	10	20
1,2	83,3	6,9	76,4	90,3	12	25
1,3	76,9	5,9	71,0	82,8	14	25
1,4	71,4	5,1	66,3	76,5	16	30
1,5	66,7	4,4	62,2	71,1	19	30
1,6	62,5	3,9	58,6	66,4	21	35
1,7	58,8	3,5	55,4	62,3	24	53
1,8	55,6	3,1	52,5	58,6	27	40
1,9	52,6	2,8	49,9	55,4	30	40
2,0	50,0	2,5	47,5	52,5	33	45

*rounded up of whole μm

The minium coat thickness under the insertion tool should to be 10 μm film thickness.

7. Error correction

Lamp does not light up. Battery empty, battery inserted in the wrong direction

All cuts appear rough and frayed Cutting tool is dull

Scale in the microscope is not sharp turn the ocular ring to sharpen image

8. Technical Data

Temperature Range	10° to 40° C (operation)0° C to 60° C (store)
Rel. humidity	up to 85% at 35° C, non condensing
Battery power supply	1 x 1.5 V DC, 0.12 A
Dimensions	(W xLxH) 35 x 113 x 98 mm
Weight	410 g

9. Accessoires and spare parts optional for adhesion

PE-3425 cutting blade 1,0 mm (DIN EN, ISO)

PE-3426 cutting blade 2,0 mm (DIN EN, ISO)

PE-3429 cutting blade 1,0 mm (ASTM)

PE-3424 cutting blade 1,5 mm (ASTM)

PE-5135 Brush

PE-8660 Permacel Adhesive Tape

PE-5137 DIN EN, ISO Adhesive Tape

optional for film thickness

PG-3419 Special Cutter up to 100 μm

PG-3420 Special Cutter up to 3000 μm

Optional for Indentation

PG-3427 Buchholz Indentation Device

PG-3434 Slip-on-weight

10. Cleaning and Maintenance

- Do not use solvents to clean the instrument, some parts are not resistant against solvent and solvent-containing detergents.
- Before cleaning switch the illumination of and remove the battery.
- Visually check periodically the condition of the cutting tools.

EC Declaration of Conformity

We BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

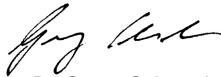
herewith declare that the product

Type byko-cut universal

complies with the requirements of the following EC directive:
2004/108/EG Electromagnetic Compatibility

The following harmonized standard was applied:
EN 61326-1:2006

Geretsried, September 10, 2008



Dr. Georg Schroeder
Managing Director

EG-Konformitätserklärung

Wir BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

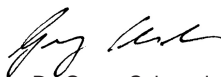
erklären hiermit, dass das Produkt:

Typ: byko-cut universal

der folgenden EG-Richtlinie entspricht:
2004/108/EG EMV-Richtlinie

Folgende harmonisierte Norm wurde angewendet:
EN 61326-1:2006

Geretsried, 10. September 2008



Dr. Georg Schroeder
Geschäftsführer

Déclaration de conformité CE

Nous, l'entreprise BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

déclarons, par la présente que le produit :

Modèle : byko-cut universal

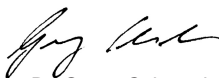
est conforme à la directive CE suivante :

Directive CEM 2004/108/CE

La norme harmonisée suivante a été appliquée :

EN 61326-1:2006

Geretsried, le 10 septembre 2008



Dr. Georg Schroeder

Directeur général

Dichiarazione di conformità CE

La ditta BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

dichiara con la presente dichiarazione che il prodotto:

modello: byko-cut universal

corrisponde ai requisiti della seguente direttiva

sulla compatibilità elettronica:

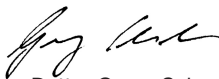
2004/108/CE

Direttiva sulla compatibilità elettronica

Si è applicata la seguente normativa armonizzata:

EN 61326-1:2006

Geretsried, 10 settembre 2008



Dottor Georg Schroeder

Amministratore

Declaración de conformidad CE

Nosotros, la sociedad BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

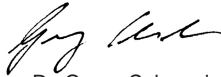
declaramos por la presente que el producto:

Tipo: byko-cut universal

cumple las siguientes directivas CE:
2004/108/EG Directiva Compatibilidad
Electro Magnética CEM

Se ha aplicado la siguiente norma armonizada:
EN 61326-1:2006

Geretsried, 10 de septiembre 2008



Dr. Georg Schroeder
Director gerente

Declaração de Conformidade CE

A empresa BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

declara pelo presente, que o produto:

Tipo: byko-cut universal

corresponde às seguintes directivas CE:
2004/108/CE
Directiva de Compatibilidade
Electromagnética

Foi aplicada a seguinte norma harmonizada:
EN 61326-1:2006

Geretsried, 10 de Setembro de 2008



Dr. Georg Schroeder
Director Gerente

EG-conformiteitsverklaring

Wij BYK-Gardner GmbH
 Lausitzer Strasse 8
 82538 Geretsried

verklaren hiermee dat het product:

type: byko-cut universal

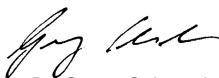
voldoet aan de volgende EG-richtlijn:

2004/108/EG EMC-richtlijn

De volgende geharmoniseerde norm werd toegepast:

NEN-EN 61326-1:2006

Geretsried, 10 september 2008



Dr. Georg Schroeder
Bedrijfsleider

EF-overensstemmelseserklæring

Vi BYK-Gardner GmbH
 Lausitzer Strasse 8
 82538 Geretsried

erklærer hermed at produktet:

Type: byko-cut universal

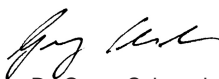
er i overensstemmelse med følgende EU-direktiv:

2004/108/EU EMC-direktivet

Følgende harmoniserede normer blev anvendt:

EN 61326-1:2006

Geretsried, 10. september 2008



Dr. Georg Schroeder
Direktør

EG-försäkran om överensstämmelse

Vi BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

försäkrar härmed att produkten:

Typ: byko-cut universal

motsvarar följande EG-direktiv:

2004/108/EG EMC-direktiv

Följande harmoniserade standard tillämpades:

EN 61326-1:2006

Geretsried, 10:e september 2008



Dr. Georg Schroeder

Verkställande direktör

EF-samsvarserklæring

Vi BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

erklærer hermed at produktet:

Type: byko-cut universal

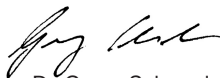
er i samsvar med EF-direktivet:

2004/108/EF EMC-direktiv

Det ble anvendt følgende harmoniserte standard:

EN 61326-1:2006

Geretsried, 10. september 2008



Dr. Georg Schroeder

Daglig leder

EY-yhdenmukaisuusvakuutus

Me BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

vakuutamme täten, että tuote:

Tyyppi: byko-cut universal

on seuraavan EY-direktiivin mukainen:

2004/108/EY

sähkömagneettisen mukautuvuuden direktiivi

Seuraavaa harmonisoitua standardia on käytetty:

EN 61326-1:2006

Geretsried, 10. syyskuuta 2008



Tri Georg Schroeder

Toimitusjohtaja

Deklaracja zgodności WE

My, firma BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

niniejszym deklarujemy, że produkt:

typ: byko-cut universal

odpowiada następującej dyrektywie WE:

2004/108/WE

dyrektywa EMC

Została zastosowana poniższa norma zharmonizowana:

EN 61326-1:2006

Geretsried, 10 wrzesień 2008



Dr. Georg Schroeder

Dyrektor

Prohlášení o shodě EU

My, BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

prohlašujeme a potvrzujeme, že výrobek:

Typ: byko-cut universal

je ve shodě s následující směrnicí Rady EU:

2004/108/EHS

Směrnice o elektromagnetické kompatibilitě

Použitá harmonizovaná norma:

EN 61326-1:2006

Geretsried dne 10. září 2008



Dr. Georg Schroeder
jednatel

Vyhlasenie o zhode s predpismi ES

My, BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

týmto vyhlasujeme, že výrobok:

Typ: byko-cut universal

vyhovuje nasledujúcim smerniciam ES:

2004/108/ES Smernica EMV

Bola použitá táto harmonizovaná norma:

EN 61326-1:2006

Geretsried, 10. september 2008



Dr. Georg Schroeder
obchodný vedúci

Izjava ES o skladnosti

Podjetje BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

izjavlja, da izdelek:

tip: byko-cut universal

izpolnjuje zahteve naslednje direktive ES:

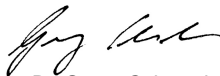
2004/108/ES

Direktiva o elektromagnetni združljivosti

Uporabljen je bil naslednji usklajen standard:

EN 61326-1:2006

Geretsried, 10.9.2008



Dr. Georg Schroeder

Poslovodja

EK szabvány-megfelelési nyilatkozat

Az BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

kijelenti, hogy az

A byko-cut universal

megfelel az EK

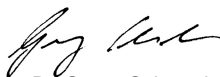
elektromágneses összeférhetőségről (EMV) szóló

2004/108/EK jelű irányelvének

Alkalmazott honosított szabvány:

EN 61326-1:2006

Geretsried, 2008 szeptember 10



Dr. Georg Schroeder

ügyvezető

Declarație de conformitate CE

Noi, BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

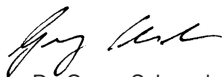
declarăm prin prezenta că produsul:

tip: byko-cut universal

corespunde următoarei directive CE:
2004/108/CE
Directiva Compatibilitate Electromagnetică

S-a aplicat următoarea normă armonizată:
EN 61326-1:2006

Geretsried, 10 septembrie 2008



Dr. Georg Schroeder
Director

ЕО-декларация за съответствие

Ние, BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

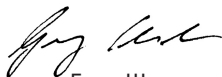
с настоящото заявяваме, че продуктът:

тип: byko-cut universal

съответства на следната директива на ЕО:
2004/108/ЕО Директива за
електромагнитната съвместимост

Бе приложен следният хармонизиран стандарт:
EN 61326-1:2006

Геретсрийд (Geretsried), 10 септември 2008 г.



д-р Георг Шрьодер (Dr. Georg Schroeder)
управител

Δήλωση πιστότητας ΕΚ

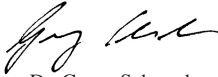
Εμείς BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

με το παρόν δηλώνουμε, ότι το προϊόν:

Τύπος: byko-cut universal
ανταποκρίνεται στην ακόλουθη οδηγία της ΕΚ:
2004/108/ΕΚ
Οδηγία περί ηλεκτρομαγνητικής
συμβατότητας (ΗΜΣ)

Εφαρμόστηκε το ακόλουθο εναρμονισμένο πρότυπο:
EN 61326-1:2006

Geretsried, 10 Σεπτεμβρίου 2008



Dr. Georg Schroeder
Διευθύνων Σύμβουλος

EG-Uygunluk Beyanı

Biz BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

İşbu beyan ile aşağıdaki ürünün:

Tip: byko-cut universal

Aşağıdaki AB Yönetmeliğine uygun olduğunu beyan ederiz:
2004/108/EG EMV Yönetmeliği

Aşağıdaki uyumlu norm uygulanmıştır:
EN 61326-1:2006

Geretsried, 10. Eylül 2008



Dr. Georg Schroeder
Genel Müdür

Заявление о соответствии стандартам ЕС

Мы, компания BYK-Gardner GmbH
 Lausitzer Strasse 8
 82538 Geretsried

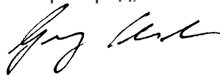
настоящим заявляем, что изделие:

Тип: byko-cut universal
соответствует следующей директиве ЕС:
 2004/108/EG

 Директива по электромагнитной
совместимости

Была применена следующая гармонизирующая норма:
 EN 61326-1:2006

Геретсрид, 10 сентября 2008 г.



Д-р Георг Шрёдер
Директор

EÜ vastavusdeklaratsioon

Meie BYK-Gardner GmbH
 Lausitzer Strasse 8
 82538 Geretsried

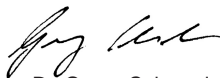
deklareerime siinkohal, et toode:

tüüp: byko-cut universal

vastab järgmisele EÜ direktiivile:
 2004/108/EÜ EMC direktiiv

Kohaldati järgmist harmoniseeritud normi:
 EN 61326-1:2006

Geretsried, 10. september 2008



Dr. Georg Schroeder
Ärijuht

EK atbilstības deklarācija

Mēs, BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried

ar šo deklarējam, ka produkts,
kura veids ir byko-cut universal

atbilst sekojošai EK direktīvai:

2004/108/EK
par elektromagnētisko savietojamību (EMS)

Tika pielietots sekojošs harmonizēts standarts:
EN 61326-1:2006

Geretsridā, 2008. gada 10. septembrī



Dr. Georgs Šrēders
kapitālsabiedrības vadītājs

EB atitiktības deklarācija

Mēs, BYK-Gardner GmbH
Lausitzer Strasse 8
82538 Geretsried


šiuo pareiškiamo, kad gaminys:
tipas: byko-cut universal

atitinka tokią EB direktyvą:

2004/108/EB
EMS direktyva

Buvo taikytas toks darnusis standartas:
EN 61326-1:2006

Geretsriedas, 2008 m. rugsėjo 10 d.



Dr. Georg Schroeder
Vadovas

183 019 275 - 0901