

Manufacture of industrial Knives





## About us

Over 100 years ago the Paul Wegner Company was founded in Hagen Germany in 1908. Since then, Paul Wegner the first factory owner established a company with excellent quality, outstanding service, and still assuring a traditional company environment. The family business developed to a well-known Paper Blade Company domestically as well as internationally throughout these years. Next to the paper industry the Paul Wegner GmbH & Co. KG also focuses on the food industry, the chemistry industry as well as the automotive and colour industry. Due to the variety of products and the exceptional quality the Paul Wegner foundation advanced to a recognized business in its branch.

#### "We love what we do and we do it with passion"

This motto represents the company's values and attitudes towards its customers. As a family business our main goal is to create a sustainable economy and to guarantee our employees a safe workplace. The Paul Wegner GmbH & Co. KG is a four-generation business, which aims to improve its competition internationally and to further ensure the best quality for our customers.



- Paper Industry
- Food Industry
- Colour Industry
- Chemistry Industry
- Automotive Industry

## Product Portfolio

- Coating Blades / with Tungsten Carbid
- · Creping Blades / with Ceramic
- Doctor Blades Metal / with Tungsten Carbid
- Doctor Blades Plastic
- Metering Rods Rollflexblades
- Sealing Blades
- Limiting Plates
- Scraper Knives
- Special Knives
- Sliding Knive for die casting machines

## Development

The main focus of the Paul Wegner GmbH & Co. KG is the satisfaction of our customers. It has highest priority for our business to have a wide and individual customer support. Our team is always encouraged to find the best solution for our customers and their product needs and wishes. The Paul Wegner Company is well known all over the world for the variety of its products, the excellent product quality and the long time experience. Get informed about the special fields of applications the Paul Wegner products offer and be a part of our family business.



**Paul Wegner Coating Blades - the result of continuous technical development** Since many years our customers and partners belief in the high qualities and strong

Coating Blades

Length:

20 - 200

controlling measurements of Paul Wegner coating blades. Optimal coating and satisfied customers are our aspiration.

#### **Qualities**

Alloy No.: 1.1274 (AISI 1095)

Description: C 100 S

Hardness: HRC: 52 – 55 HV: 550 – 600

Tensile strength: 1800 – 2000 N/mm<sup>2</sup>

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Alloy No.: 1.1274 (AISI 1095)

Description: C 100 S

Hardness: HRC: 52 – 55 HV: 550 – 600

Tensile strength: 1800 - 2000 N/mm<sup>2</sup>

Alloy No.: 1.4310 (AISI 301)

Description: X10CrNi18-8

Hardness: HRC: 46 – 49 HV: 460 – 500

Tensile strength: 1500 - 1700 N/mm<sup>2</sup> Standard-thickness in mm: 0.25 / 0.305 / 0.381 / 0.40 / 0.457 / 0.508 / 0.60 / 0.635

After your specification

Standard-width in mm:

Surface: blue polished

Lenath:

20 - 200

After your specification Standard-width in mm:

Standard-thickness in mm: 0.25 / 0.305 / 0.381 / 0.40 / 0.457 / 0.508 / 0.60 / 0.635

Surface: greyish blue

Length: After your specification

Standard-width in mm: 20 - 200

Standard-thickness in mm: 0.25 / 0.305 / 0.381 / 0.40 / 0.457 / 0.508 / 0.60 / 0.635

Surface: bright polished

Length: After your specification

Standard-width in mm: 20 – 200

Standard-thickness in mm: 0.25 / 0.305 / 0.40 / 0.457 / 0.508 / 0.60

Surface: bright Angle degree: Like your specification

,pw

Angle degree: Like your specification

pw

Angle degree: Like your specification



Angle degree: Like your specification



## **Further technical parameter**

**Coating Blades** 

#### **Tolerance**

Width in mm: 76.2 +/- 0.15 84 +/- 0.15 100 +/- 0.15

Thickness in mm: 0.305 - 0.635 +/- 0.015

Angle degree: +/- 1.5°

## **Straightness**

Max. deviation exceeding 0.4 mm per 4 m length



## Roughness



Design

Individual design: Attrition indicators Notches Bevel protection



Notches like drawing

Notches like drawing

## Bevel

**Typ 1** ground squared edges 1 x 90° or 2 x 90°

**Typ 2** oneside bevel (standard) 5° - 90°







## **Coating Blades with Tungsten Carbid**

Due to the permanent technical development in coated paper through the last years it has to become more and more necessary to obtain coating blades with a longer life-time and special applications. Get in touch with this technology and try the improved coating blades with a ceramic or tungsten carbid coating on the top.

Coating

## **Qualities**

Alloy No.: 1.1274 (AISI 1095) Description: C 100 S Hardness: HRC: 52 - 55 HV: 550 - 600 Tensile strength: 1800 - 2000 N/mm <sup>2</sup>	Length: After your specification Standard-width in mm: 20 - 100 Standard-thickness in mm: 0.305 / 0.381 / 0.40 / 0.457 0.508 / 0.60 / 0.635 Surface: blue polished	Angle degree: Like your specification	Substrate: Carbon steel Lay: Tungsten Carbid Hardness Tungsten Carbid: approx. 1200 HV Colour Tungsten Carbid: silver	pw
Alloy No.: 1.1274 (AISI 1095) Description: C 100 S Hardness: HRC: 52 - 55 HV: 550 - 600 Tensile strength: 1800 - 2000 N/mm <sup>2</sup>	Length: After your specification Standard-width in mm: 20 - 100 Standard-thickness in mm: 0.305 / 0.381 / 0.40 / 0.457 0.508 / 0.60 / 0.635 Surface: greyish blue	Angle degree: Like your specification	Substrate: Carbon steel Lay: Tungsten Carbid Hardness Tungsten Carbid: approx. 1200 HV Colour Tungsten Carbid: silver	/244
Alloy No.: 1.1274 (AISI 1095) Description: C 100 S Hardness: HRC: 52 – 55 HV: 550 – 600 Tensile strength: 1800 – 2000 N/mm <sup>2</sup>	Length: After your specification Standard-width in mm: 20 - 100 Standard-thickness in mm: 0.305 / 0.381 / 0.40 / 0.457 0.508 / 0.60 / 0.635 Surface: bright polished	Angle degree: Like your specification	Substrate: Carbon steel Lay: Tungsten Carbid Hardness Tungsten Carbid: approx. 1200 HV Colour Tungsten Carbid: silver	pm

### Information

All coating blades are also available with a ceramic coating like Aluminium-Oxid (AL2O3) or Chrome-Oxid (Cr2O3). Please feel free to contact our personal staff for more information.

# **Coating Blades with Tungsten Carbid**

### **Further technical parameter**

### **Tolerance**

Width in mm: 76.2 +/- 0.15 84 +/- 0.15 100 +/- 0.15

Thickness in mm: 0.305 - 0.635 +/- 0.015

Angle degree: +/- 1.5°

## Straightness

Max. deviation exceeding 0.4 mm per 4m length

x = Blade deviation

## Roughness



Design

Individual design: Attrition indicators Notches Bevel protection Notches like drawing

Notches like drawing

## Bevel

**Typ 1** ground squared edges 1 x 90°

**Typ 2** oneside bevel (standard) 5° - 90°



## Processes of the coating (Tungsten Carbid and Ceramic)

Coating lay

base









## Creping Blades

Tissue, paper towels or toilet paper. Belief in our long time experience and know how in manufacturing creping blades for different tissue industries.

### **Qualities**

Alloy No: 1.0605 (AISI 1075)

Description: C 75 S

Hardness: HRC: 48 – 52 HV: 490 – 550

Tensile strength: 1600 - 1800 N/mm<sup>2</sup>

Alloy No: 1.0605 (AISI 1075)

Description: C 75 S

Hardness: HRC: 48 - 52 HV: 490 - 550

Tensile strength: 1600 - 1800 N/mm<sup>2</sup>

Alloy No: 1.0605 (AISI 1075)

Description: C 75 S

Hardness: HRC: 48 – 52 HV: 490 – 550

Tensile strength: 1600 - 1800 N/mm<sup>2</sup>

Alloy No: 1.1274 (AISI 1095)

Description: C 100 S

Hardness: HRC: 52 – 55 HV: 550 – 600

Tensile strength: 1800 - 2000 N/mm<sup>2</sup>

Alloy No: 1.1274 (AISI 1095)

Description: C 100 S

<mark>Hardness:</mark> HRC: 52 - 55 HV: 550 - 600

Tensile strength: 1800 - 2000 N/mm<sup>2</sup> Length: After your specification

Standard width in mm: 100 / 110 / 114 / 120 / 125 / 127 / 130

**Standard thickness in mm:** 0.9 / 1.0 / 1.25 / 1.27 / 1.5

Surface: blue polished

Length: After your specification

Standard width in mm: 100 / 110 / 114 / 120 / 125 / 127 / 130

Standard thickness in mm: 0.9 / 1.0 / 1.25 / 1.27 / 1.5

Surface: greyish blue

Length: After your specification

**Standard width in mm**: 100 / 110 / 114 / 120 / 125 / 127 / 130

Standard thickness in mm: 0.9 / 1.0 / 1.25 / 1.27 / 1.5

#### Surface: bright polished

Length: After your specification

Standard width in mm: 100 / 110 / 114 / 120 / 125 / 127 / 130

Standard thickness in mm: 0.9 / 1.0 / 1.25 / 1.27 / 1.5

Surface: blue polished

Length: After your specification

Standard width in mm: 100 / 110 / 114 / 120 / 125 / 127 / 130

Standard thickness in mm: 0.9 / 1.0 / 1.25 / 1.27 / 1.5

Surface: greyish blue

## Design:

. with cut edges, straightened

- 2. straightened, grinded 90° on both sides
- 3. with one or both sides bevelled from 50-85°

## Design:

- 1. with cut edges, straightened
- 2. straightened, grinded 90° on both sides
- 3. with one or both sides bevelled from 50-85°
- Design: 1. with cut edges,
- straightened
- 2. straightened, grinded 90° on both sides
- 3. with one or both sides bevelled from 50-85°

#### Design:

- 1. with cut edges, straightened
- 2. straightened, grinded 90° on both sides
- 3. with one or both sides bevelled from 50-85°



#### Design: 1. with

- . with cut edges, straightened
- 2. straightened, grinded 90° on both sides
- 3. with one or both sides bevelled from 50-85°







## **Creping Blades**

## **Qualities**

Alloy No: 1.1274 (AISI 1095)

Description: C 100 S

Hardness: HRC: 52 - 55 HV: 550 - 600

Tensile strength: 1800 - 2000 N/mm<sup>2</sup>

Alloy No: 1.4021 (AISI 420)

Description: X20Cr13

Hardness: HRC: 47 - 50 HV: 470 - 520

Tensile strength: 1500 – 1700 N/mm<sup>2</sup>

Alloy No: 2.1020 (Bronze)

Description: Cu Sn 6

Hardness: HB: 200 – 230

Tensile strength: 650 – 740 N/mm<sup>2</sup> Length: After your specification Standard width in mm: 100 / 110 / 114 / 120 / 125 / 127 / 130 Standard thickness in mm: 0.9 / 1.0 / 1.25 / 1.27 / 1.5 Surface: bright polished

Length: After your specification

Standard width in mm: 100 / 110 / 114 / 120 / 125 / 127 / 130

Standard thickness in mm: 1.25

Surface: bright polished

Surface:

bronze

Length: After your specification Standard width in mm:

100 / 114 / 120 / 125 / 127 / 130 Standard thickness in mm: 0.9 / 1.0 / 1.25 / 1.5 Design:

1. with cut edges, straightened

- 2. straightened, grinded 90° on both sides
- 3. with one or both sides bevelled from 50-85°

#### Design:

- 1. with cut edges, straightened
- 2. straightened, grinded 90° on both sides
- 3. with one or both sides bevelled from 50-85°

#### Design: 1. with cut edges,

- straightened
- 2. straightened, grinded 90° on both sides
- 3. with one or both sides bevelled from 50-85°







# **Creping Blades**

## **Further technical parameter**

### **Tolerance**

	Coils	Creping Blades in length
Straightness	0.5 mm / 3 m	0.5 mm / 3 m
Width	+/- 0.5 mm	+/- 0.5 mm

## Design

Individual design:

Chamfered Creping Blades

### Bevel

**Typ 1** ground squared edges 1 x 90° or 2 x 90°



**Typ 2** oneside bevel (standard) 5° - 90°



Typ 3 on both sides bevelled



## Information

Regrinding of standard Creping Blades are possible. It would be a pleasure for us to submit you an individual offer.





## **Creping Blades with Ceramic**

Due to the permanent technical development in tissue through the last years it has to become more and more necessary to obtain creping blades with a longer lifetime and special applications. Get in touch and try the improved creping blades with a ceramic or tungsten carbid coating on the top.

Coating

### **Qualities**

Allov No.: Lenath: Design Substrate: 1.0605 (AISI 1075) After your specification with cut edges, Carbon steel straightened Description: Standard-width in mm: Lay: C 75 S 100 / 110 / 114 / 120 / 125 straightened, grinded 90° Ceramic 2. on both sides Hardness: Standard-thickness in mm: Hardness Ceramic: HRC: 48 - 52 0.9 / 1.0 / 1.25 / 1.5 3. with one or both sides approx. 1000 HV HV: 490 – 550 bevelled from 50-85° Colour Ceramic: Tensile strength: Surface: grey 1600 - 1800 N/mm<sup>2</sup> blue polished Alloy No.: Length: Design: Substrate: 1.0605 (AISI 1075) After your specification with cut edges, 1. Carbon steel straightened Description: Standard-width in mm: Lav C 75 S 100 / 110 / 114 / 120 / 125 straightened, grinded 90° 2 Ceramic on both sides Standard-thickness in mm: Hardness Ceramic: Hardness: HRC: 48 - 52 0.9 / 1.0 / 1.25 / 1.5 3. with one or both sides approx. 1000 HV HV: 490 - 550 bevelled from 50-85° **Colour Ceramic:** Tensile strength: Surface: grey 1600 - 1800 N/mm<sup>2</sup> greyish blue Substrate: Alloy No Length: Design 1.0605 (AISI 1075) Carbon steel After your specification 1. with cut edges, straightened Description: Standard-width in mm: Lay: C 75 S 100 / 110 / 114 / 120 / 125 straightened, grinded 90° Ceramic 2. on both sides Hardness Ceramic: Hardness: Standard-thickness in mm: HRC: 48 - 52 0.9 / 1.0 / 1.25 / 1.5 with one or both sides approx. 1000 HV 3. HV: 490 - 550 bevelled from 50-85° **Colour Ceramic:** Tensile strength: Surface: grey 1600 - 1800 N/mm<sup>2</sup> bright polished Substrate: Alloy No.: l enath Design: 1.1274 (AISI 1095) After your specification with cut edges. Carbon steel 1. straightened Description: Standard-width in mm: Lay: C 100 S 100 / 110 / 114 / 120 / 125 2. straightened, grinded 90° Ceramic on both sides Hardness: Standard-thickness in mm: Hardness Tungsten Carbid: HRC: 52 - 55 0.9 / 1.0 / 1.25 / 1.5 with one or both sides 3 HV: 550 - 600 bevelled from 50-85 approx. 1000 HV Tensile strength: Surface: **Colour Ceramic:** 1800 - 2000 N/mm<sup>2</sup> blue polished arev Alloy No.: Length: Substrate: Design 1.1274 (AISI 1095) After your specification with cut edges, Carbon steel 1. straightened Description: Standard-width in mm: Lav: C 100 S 100 / 110 / 114 / 120 / 125 straightened, grinded 90° 2. Ceramic on both sides Standard-thickness in mm: Hardness Ceramic: Hardness: HRC: 48 - 55 0.9 / 1.0 / 1.25 / 1.5 with one or both sides 3. approx. 1000 HV HV: 490 - 550 bevelled from 50-85° **Colour Ceramic:** 

<mark>Tensile strength:</mark> 1600 – 1800 N/mm² Surface: greyish blue

grey

# **Creping Blades with Ceramic**

## Qualities

Alloy No.:         1.1274 (AISI 1095)         Description:         C 100 S         Hardness:         HRC: 52 - 55         HV: 550 - 600         Tensile strength:         1800 - 2000 N/mm²	Length: After your specification Standard-width in mm: 100 / 110 / 114 / 120 / 125 Standard-thickness in mm: 0.9 / 1.0 / 1.25 / 1.5 Surface: bright	Des 1. 2. 3.	ign: with cut edges, straightened straightened, grinded 90° on both sides with one or both sides bevelled from 50-85°	Substrate: Carbon steel Lay: Ceramic Hardness Ceramic: approx. 1000 HV Colour Ceramic: grey	pw.
Alloy No.: 1.4021 (AISI 420) Description: X20Cr13 Hardness: HRC: 47 - 50 HV: 470 - 520 Tensile strength: 1600 - 1800 N/mm <sup>2</sup>	Length: After your specification Standard-width in mm: 100 / 114 / 120 / 125 Standard-thickness in mm: 1.25 Surface: bright polished	Des 1. 2. 3.	ign: with cut edges, straightened straightened, grinded 90° on both sides with one or both sides bevelled from 50-85°°	Substrate: Stainless steel Lay: Ceramic Hardness Ceramic: approx. 1000 HV Colour Ceramic: grey	
Alloy No.: 2.1020 (Bronze) Description: Cu Sn 6 Hardness: HB: 200 - 230 Tensile strength: 650 - 740 N/mm <sup>2</sup>	Length: After your specification Standard-width in mm: 100 / 114 / 120 / 125 Standard-thickness in mm: 1.0 / 1.2 / 1.5 Surface: bronze	Des 1. 2. 3.	ign: with cut edges, straightened straightened, grinded 90° on both sides with one or both sides bevelled from 50-85°	Substrate: Bronze Lay: Ceramic Hardness Ceramic: approx. 1000 HV Colour Ceramic: grey	pw.

Coating

# **Creping Blades with Ceramic**

## **Further technical parameter**

## Tolerance

	Coils	Creping Blades in length
Straightness	0.5 mm / 3 m	0.5 mm / 3 m
Width	+/- 0.5 mm	+/- 0.5 mm

## Design

### Bevel

**Typ 1** ground squared edges 1 x 90°



Typ 2 oneside bevel (standard)  $5^{\circ} - 90^{\circ}$ 



## Information

Please notice that it is not possible to regrind Creping Blades with a Ceramic or Tungsten Carbid coating lay.





## **Doctor Blades - Metal**

Different industries need different types of blades & knives. Combine your individual metal doctor blade for your needed applications. High qualities and strong controlling measurements guarantee optimal results.

### Qualities

Material-No.: PW 100

Alloy No.: 2.4375 (Monel)

Description: Ni Cu 30 AL

Hardness: HRC: 26 – 32 HV: 270 - 320

Material-No.: PW 110

Alloy No.: 2.1020 (Bronze)

Description: Cu Sn 6

Hardness: HB: 200 - 230

Material-No.: PW 130

Alloy No.: 1.4310 (AISI 301)

Description: X10CrNi18-8

Hardness: HRC: 46 - 49 HV: 460 - 500

Material-No.: PW 140

Allov No.: 1.4021 (AISI 420)

Description: X20Cr13

Hardness: HRC: 47 - 50 HV: 470 - 520

Material-No.: PW 150

Alloy No.: 1.0605 (AISI 1075)

Description: C 75 S

Hardness: HRC: 46 - 49 HV: 460 - 500 Cold rolled and hardened Tensile strength:

850 - 1050 N/mm<sup>2</sup> Surface:

bright

Description:

Description: Acid resistant and cold rolled

Tensile strength: 650 - 740 N/mm<sup>2</sup> Surface:

bronze cold rolled

**Description**: Cold rolled stainless steel (18% chrome)

Tensile strength: 1500 - 1700 N/mm<sup>2</sup>

Surface: bright

Description: Hardened and tempered stainless steel (13% chrome)

Tensile strength: 1500 - 1700 N/mm<sup>2</sup>

Surface: bright polished

## Description:

Hardened and tempered carbon steel with 0.75% C

Tensile strength: 1500 - 1700 N/mm<sup>2</sup>

Surface: bright polished

#### Range of application: Depending on roll cover material

Dryers

- Steel Calanders
- MG Cylinders
- Yankee Creping



Range of application: Depending on roll cover material

Dryers

Reel Drum **Steel Calanders** 

Range of application:

Breast Rolls

Steel Calanders

Press Rolls

Depending on roll cover material

6

Range of application: Depending on roll cover material

Hard rubber

Range of application:

Drvers

Press Rolls

Depending on roll cover material





## **Doctor Blades - Metal**

## **Qualities**

#### Material-No.: PW 160

Alloy No.: 1.1274 (AISI 1095)

Description: C 100 S

Hardness: HRC: 50 - 54 HV: 530 - 600 Description: Hardened and tempered carbon steel with 1.0% C

Tensile strength: 1800 - 2000 N/mm<sup>2</sup>

Surface: bright polished

#### Range of application:

6

Depending on roll cover material

- Yankee Creping
- Dryers MG Cylinders



## Design

Type of holder: We deliver finished Doctor Blades for every type of holder and system, e.g.

Rivet

Rivet with clip and washer







- Holes
- Slots
- Notches

## Bevel

Typ 1 ground squared edges 1 x 90° or 2 x 90°

Typ 2 oneside bevel (standard)  $5^{\circ} - 90^{\circ}$ 



a)

Typ 3 a) b) on both sides bevelled c) double bevel







All metal-qualities are also available with a ceramic or tungsten carbid coating on the top of the blade. A longer life-time and a lower friction coefficient of the blade are just two advantages of this improved technology.

Coating

### Qualities

Material No.: Description: Range of application: Substrate: PW 100 Cold rolled and hardened Depending on roll cover material Monel Lay: Breast Rolls Alloy No.: Tensile strength: Tungsten Carbid 2.4375 (Monel) Press Rolls 850 - 1050 N/mm<sup>2</sup> Steel Calanders Hardness Description: Surface: Tungsten Carbid: Ni Cu 30 AL bright approx. 1200 HV Hardness: Colour Tungsten Carbid: HRC: 26 - 32 HV: 270 - 320 silver Material No.: Description: Range of application: Substrate: PW 110 Acid resistant and cold rolled Depending on roll cover material Bronze Lay Dryers Allov No.: Tensile strenath: **Tungsten** Carbid Reel Drum 650 - 740 N/mm<sup>2</sup> 2.1020 (Bronze) Hardness **Steel Calanders** Description: Tungsten Carbid: Surface approx. 1200 HV bronze cold rolled Cu Sn 6 Colour Tungsten Carbid: Hardness: HB: 200 - 230 silver Material No.: Range of application: Substrate Description-PW 130 Cold rolled stainless steel Depending on roll cover material Stainless steel (18% chrome) Hard rubber Alloy No.: Lav: Tungsten Carbid 1.4310 (AISI 301) Tensile strength: 1500 - 1700 N/mm<sup>2</sup> Description: Hardness X10CrNi18-8 Surface: Tungsten Carbid: bright approx. 1200 HV Hardness: HRC: 46 - 49 Colour Tungsten Carbid: HV: 460 - 500 silver Material No.: Description: Range of application: Substrate: PW 140 Hardened and tempered Depending on roll cover material Stainless steel stainless steel (13% chrome) Dryers Lav: Allov No.: Tensile strenath: Press Rolls Tungsten Carbid 1.4021 (AISI 420) 1500 - 1700 N/mm<sup>2</sup> Hardness Description: Surface: Tungsten Carbid: X20Cr13 bright polished approx. 1200 HV Hardness: HRC: 47 - 50 Colour Tungsten Carbid: HV: 470 - 520 silver Material No.: Range of application: Substrate: Description: PW 150 Hardened and tempered Depending on roll cover material Carbon steel carbon steel with 0,75% C Dryers Alloy No.: Tensile strength: Lay: Steel Calanders 1.0605 (AISI 1075) 1500 - 1700 N/mm<sup>2</sup> **Tungsten Carbid** MG Cylinders Yankee Creping Description: Surface: Hardness C 75 S bright polished **Tungsten Carbid:** approx. 1200 HV Hardness:

HRC: 46 – 49 HV: 460 - 500

Colour Tungsten Carbid: silver



## Doctor Blades with Jungste rbic

## Qualities

Material No.: PW 160

Alloy No.: 1.1274 (AISI 1095)

Description: C 100 S

Hardness: HRC: 50 - 54 HV: 530 - 600

Description: Hardened and tempered carbon steel with 1,0% C

Tensile strength: 1500 - 1700 N/mm<sup>2</sup>

Surface: bright polished

### Range of application:

Depending on roll cover material

- Yankee Creping
- Dryers
- MG Cylinders

### Coating

Substrate: Carbon steel

Lav: Tungsten Carbid

Hardness Tungsten Carbid: approx. 1200 HV



Colour Tungsten Carbid: silver



Type of holder: We deliver finished Doctor Blades for every type of holder and system, e.g.

Rivet

<u>annun mutan</u>

Rivet with clip and washer



## **Individual design**

- Holes
- Slots
- Notches

## Bevel

Typ 1 ground squared edges 1 x 90°

//////

Typ 2 oneside bevel (standard) 5° - 90°





Since many years our customers and partners are very satisfied with the high qualities and strong controlling measurements of Paul Wegner Plastic Doctor Blades.

Generally we distinguish between different types of materials (duroplast Doctor Blades made from glassfiber, carbonfiber & woven and thermoplast Doctor Blades).

## Composite with Glassfiber (SFGG)

## **Qualities**

Material No.: PW 200 Description: SFGC Standard Colour: light brown	Description: Composite made from glassfiber with epoxy resin Flexural strength: 380 N/mm <sup>2</sup> Heat resistance: 175 °C	<ul> <li>Range of application:</li> <li>Depending on roll cover material</li> <li>Cast iron rolls</li> <li>Press section</li> <li>Drying section</li> </ul>	pw -
Material No.: PW 205 Description: SFGC green Colour: green	Description: Composite made from glassfiber with epoxy resin Flexural strength: 380 N/mm <sup>2</sup> Heat resistance: 200 °C	Range of application:Depending onroll cover material• Cast iron rolls• Drying cylinder• Softkalander• Size presses	pw
Material No.: PW 208 Description: SFGC red Colour: red	Description: Composite made from glassfiber with epoxy resin Flexural strength: 580 N/mm <sup>2</sup> Heat resistance: 185 °C	<ul> <li>Range of application:</li> <li>Depending on roll cover material</li> <li>Steel and cast iron rolls</li> <li>Drying cylinders</li> </ul>	
Material No.: PW 210 Description: SFGG – silicium carbid with grit 120 Colour: anthracite	Description: Composite made from glassfiber with silicium carbid and epoxy resin Flexural strength: 380 N/mm <sup>2</sup> Heat resistance: 175 °C	<ul> <li>Range of application:</li> <li>Depending on roll cover material</li> <li>Steel and cast iron rolls</li> <li>Dirty drying cylinders</li> </ul>	PW
Material No.: PW 215 Description: SFGC - silicium carbid with grit 180 Colour: anthracite	Description: Composite made from glassfiber with silicium carbid and epoxy resin Flexural strength: 380 N/mm <sup>2</sup> Heat resistance: 175 °C	<ul> <li>Range of application:</li> <li>Depending on roll cover material</li> <li>Dirty drying cylinder</li> <li>Steel rolls</li> </ul>	

## Composite with Carbonfiber

## **Qualities**

Material No.: PW 220 Description: Carbon fiber Colour: black	Description: Composite material made from glass epoxy and carbon fiber (contend 25% carbon) Flexural strength: 380 N/mm <sup>2</sup> Heat resistance: 185 °C	Range of application:Depending onroll cover materialPress sectionSuperkalanderDryers	production of the second se
Material No.: PW 224 Description: Carbon fiber Colour: black	Description: Composite material made from glass epoxy and carbon fiber (contend 50% carbon)Flexural strength: 380 N/mm²Heat resistance: 185 °C	Range of application:Depending onroll cover material•Press section•Superkalander•Dryers	
Material No.: PW 226 Description: Carbon fiber Colour: black	Description: Composite material made from glass epoxy and carbon fiber (contend 75% carbon) Flexural strength: 380 N/mm <sup>2</sup> Heat resistance: 200 °C	Range of application:Depending onroll cover material•Press section•Superkalander•Dryers	
Material No.: PW 229 Description: Carbon fiber Colour: black	Description: 100% Carbon fiber with epoxy resin Flexural strength: 380 N/mm <sup>2</sup> Heat resistance: 200 °C	Range of application:Depending onroll cover material•Press section•Superkalander•Dryers	244

## Information

Our Doctor Blades with carbonfiber are also available with different grades of silicium carbid (120, 180, 240).

## Composite with woven (MGFF)

## **Qualities**

Material No.: PW 230

Description: Cotton phenolic

Colour: light brown

Material No.: PW 240

Description: Cotton phenolic with lubricant

Colour: anthracite-green Description: Cotton phenolic

Flexural strength: 150 N/mm<sup>2</sup>

Heat resistance: 130 °C

Description: Cotton phenolic with lubricant

Flexural strength: 175 N/mm<sup>2</sup>

Heat resistance: 140 °C Range of application: Depending on roll cover material

• Wet part

pw a

Range of application: Depending on roll cover material

Wet part



## Plastics without woven

## Qualities

Material No.: PW 250

Description: PVC

Colour: red Description: PVC

Heat resistance: max. 70 °C

Description:

60 °C

Heat resistance:

Range of application: Depending on roll cover material

Wet part



Material No.: PW 260

Description: HDPE

Colour: yellow, black, white

Material No.: PW 270

Description: OG

Colour: dark brown

High Density Polyethylene

Heat resistance: 120 °C

Description:

Pertinax

Range of application: Depending on roll cover material

Wet part

Range of application: Depending on roll cover material

• Wet part

- Cooling cylinder
- Pope reel





## Design

#### **Type of holder:** We deliver finished

We deliver finished Doctor Blades for every type of holder and system, e.g.



## **Individual design**

- Holes
- Slots
- Notches

### Bevel

**Typ 1** ground squared edges 1 x 90° or 2 x 90°

**Typ 2** oneside bevel (standard)  $5^{\circ} - 90^{\circ}$ 



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**Typ 3** a) b) on both sides bevelled c) double bevel





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# Metering Rods - Rollflexblade

Purify your raw paper with a high quality "Rakelstrich" and receive a overall package with our appropriated Rollflex-

blades. Our hard chromed Metering Rods are fine polished and usable for a dashweight from 4 up to 15 g/m<sup>2</sup>.

## Metering Rods

## **Qualities**

Alloy No.: 1.4034 (AISI 420)

Description: X46Cr13

Hardness: HV: 150 – 210

Tensile strength: 500 - 710 N/mm<sup>2</sup> **Standard Dimension in mm**: Ø 8.0 / 9.75 / 12.0

Thickness of chrome coating: 50µm

Hardness of chrome coating: ca. 1000 HV

Design: fine polished Range of application:One side coated papers

· Specialpapers

• Board



## Rollflexblades

## **Qualities**

Alloy No.: 1.4310 (AISI 301)

Description: X10CrNi18-8

Hardness: HRC: 46 – 49 HV: 460 – 500

Tensile strength: 1500 - 1700 N/mm<sup>2</sup> Length: After your specification

Standard-width in mm: 60 – 114

Standard-thickness in mm: 0.30 – 1.0

Surface: bright polished

#### Design:

- extreme good flatness and straightness
- with slots (one side or both side) like your specification







Paul Wegner GmbH & Co. KG

# Limiting Plates

We manufacture your individual Limiting Plate. Through our long time experience and the know how in the knive business our customers will receive a high technical and accurate manufactured product. Feel free to contact our personal staff for more information and possible applications.

### **Qualities**

Alloy No.: 1.1274 (AISI 1095)

Description: C 100 S

Hardness: HRC: 52 – 55 HV: 550 – 600

Tensile strength: 1800 - 2000 N/mm<sup>2</sup>

Alloy No.: 1.4310 (AISI 301)

Description: X10CrNi18-8

Hardness: HRC: 46 – 49 HV: 460 – 500

Tensile strength: 1500 - 1700 N/mm<sup>2</sup> Length: After your specification

Standard-width in mm: up to 400

Standard-thickness in mm: 0.10 / 0.15 / 0.20 / 0.25 / 0.30 / and more

Surface: bright polished

Length: beliebig nach Ihren Angaben

Standard-width in mm: up to 400

Standard-thickness in mm: 0.10 / 0.15 / 0.20 / 0.25 / 0.30 / and more

Surface: bright polished

- all edges deburred
  in coil or cutted in length after your specification
- rounded edges
- with holes or slots like your specification

#### Design:

Design:

- all edges deburred
- in coil or cutted in length after your specification
- rounded edges
- with holes or slots like your specification







## Sealing Blades

This high technology product is made from stainless steel and precisely produced after customer's individual

drawing. The main scope of application are the Speedsizers or Symsizers of a paper machine.

### **Qualities**

Alloy No.: 1.4310 (AISI 301)

Description: X10CrNi18-8

Hardness: HRC: 46 – 49 HV: 460 – 500

Tensile strength: 1500 – 1700 N/mm<sup>2</sup> Length: After your specification

Standard-width in mm: 10 - 120

Standard-thickness in mm: 0.10 - 3.0

Surface: bright polished

#### Design: 1. like customer specification

2. bended until 12m length and special equipment

#### Range of application:

- Speedsizer
- Symsizer





## **Further design**



### Information

Please feel free to contact us if you need an individual scope of application. We will precisely produce the Sealing Blade(s) after your drawing.





Wegner Scraper Knives are much recommended in different industries all over the world. Next to the Printand Colour industry, the textile and chocolate industry are one of the main purchasers. These knives are precisely produced after customer's specifications. Feel free to contact our personal staff for more information and possible applications.

## **Qualities**

Alloy No.: 1.1274 (AISI 1095) Description: C 100 S	Length: In coil or cutted in length after your specification Standard-width in mm: 19.05 / 22.2 / 25.4 / 30 / 40 / 50	Angle degree: After your specifications	Ran • •	<b>ge of application:</b> Colour Industry Food Industry Printing Industry Textile Industry	
Hardness: HRC: 52 - 55 HV: 550 - 600	Standard-thickness in mm: 0.3 / 0.385 / 0.457 / 0.5 / 0.635		Des 1.	<mark>ign:</mark> extreme good flatness and straightness	pw.
<mark>Tensile strength:</mark> 1800 – 2000 N/mm <sup>2</sup>	Surface: blue polished		2.	skived or cut deburred edges	

## Design

### Bevel



## **Special design**

All Scraper Knives are also available with a additional inductively hardened edge.



# Sliding Knive for die casting machines

Paul Wegner Sliding Knives – the fast way to high economy. We deliver different types of sliding knives to many industrial sectors

all over the globe. We are your reliable partner for sliding knives and efficient market solutions.

## **Qualities**

Alloy No.: 1.0605 (AISI 1075)

Description: C 75 S

Hardness: HRC: 46 – 50 HV: 460 – 520

Tensile strength: 1500-1700 N/mm<sup>2</sup>

Alloy No.: 1.4310 (AISI 301)

Description: X10CrNi 18-8

Hardness: HRC: 46 - 50 HV: 460 - 520

Tensile strength: 1500-1700 N/mm<sup>2</sup>

Alloy No.: 1.2312 (AISI P20+S)

Description: 40 CrMnMoS 6-8

Hardness: HRC: 28 - 33 HV: 285 - 330

Tensile strength: 950-1100 N/mm<sup>2</sup> Length: After your specification

Standard-width in mm: 80 – 200

Standard-thickness in mm: 1-3

<mark>Surface</mark>: bright

Length: After your specification

Standard-width in mm: 80 - 225

Standard-thickness in mm: 1 - 3

Surface: plasma nitrided and polished

Length: After your specification

Standard-width in mm: 100 – 200

Standard-thickness in mm: 20 - 40

Surface: fine polished

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 production process like your specification and drawing

#### Design:

 production process like your specification and drawing
 plasma nitriding

plasma nitriding



#### Design:

 production process like your specification and drawing

plasma nitriding





## Special Knives

Next to our comprehensive product portfolio of coating blades, doctor blades and many more, the Paul Wegner

GmbH & Co. KG also supplies many special knives for different industrial applications.

- Perforating cutters
- Serrated punch cutters
- Supporting Blades
- Cutter lines
- Perforating punch cutters
- Transverse perforating cutters for all endless print systems
- Knife folder
- Cut-Off Knives
- Sliding Knives
- Guillotine Knive
- Beater Knives
- Bedplate Knives







#### Capable, flexible and reliable.

Next to the variety of our products and the outstanding product quality it is essential for our family business to focus on our customer service. The well being of our customers has first priority and because of that we provide advisory services as well as efficient service tools.

## **Re grinding of**

- Sheeter knives up to 4000 mm length
- Shear Blades
- Paper Cutting Knives
- Scrap-Chopper Knives

### **Bevelled of**

- Steel
- Bronze
- Stainless Steel
- Monel-metal up to 300 kg coils (max. thickness of the material 2 mm)

### Milling/cutting

- horizontal/vertical up to 2500 mm length
- Loading up to 500 kg



#### Paul Wegner GmbH & Co. KG





