

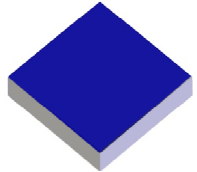
## ***Metal*** doctor blade material summary:

---

**“CX” = Bright carbon steel:** The most common blade material is a silver colored, high quality steel with economical life and excellent metallurgical properties. **CX** can be used in gravure and flexo doctoring and containment applications. **CX** is available in 6, 8, and 10 mil thicknesses with rounded, standard, and Superhoned® bevels.



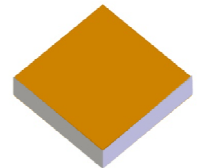
**“CB” = Blue Carbon Steel:** This is **CX** material with a blue oxide layer that helps to identify the beveled edge. CB can be used everywhere **CX** is used. CB is available in 4, 6, 8, 10, 12, 15, 18, and 20 mil thicknesses with rounded, standard, and Superhoned® bevels. Not all bevels are available in all thicknesses.



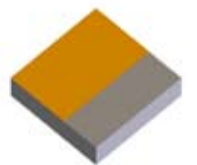
**“SS” = Martensitic stainless steel:** All of the quality properties of **CX** material with the added corrosion resistance needed for certain applications. This material has a silver surface color and is magnetic, so check labels to distinguish from **CX**. **SS** can be used in gravure and flexo doctoring and containment applications although it should be used cautiously with ceramic anilox rolls. **SS** is available in 6, 8, 10, 12, & 15 mil thicknesses with rounded, standard, and Superhoned® bevels. Not all bevels are available in all thicknesses.



**“QR” = Gold:** *Special tool steel metallurgy with very long life that is excellent for abrasive inks.* **QR** material can also help reduce roll scoring issues. Unlike other materials that form wire burrs that break off and can become trapped between the blade and cylinder as the blade wears, **QR** wears in the form of powder that can easily be flushed away from the blade. **QR** can be used in gravure and flexo doctoring and also containment applications. **QR** is available in 6 and 8 mil thicknesses with rounded, standard, and Superhoned® bevels.



**“QRH” = Gold with Laser Hardened Tip:** Our Super Gold material (**QR**) with an added laser hardened tip for high wear applications. **QRH** is proven to last 5 to 10 times longer than **CX** material and is a good alternative to costly ceramic tipped blades. **QRH** can help reduce spitting problems with UV inks. **QRH** is mainly used in flexo doctoring applications with ceramic anilox rolls. Gravure customers who are running ceramic rolls can also use **QRH** but this material can not be used on chrome cylinders. **QRH** is available in 6, 8, and 12 mil thicknesses with rounded and standard bevels.



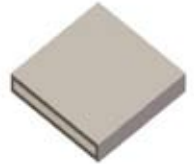
Not all bevels are available with all thicknesses listed and other thicknesses and/or bevels may be available. Call Allison Systems for guidance with selecting the correct product for your application.

## ***Metal*** doctor blade material summary (Continued): \_\_\_\_\_ -

**“CXP4”** = Supercoat™: Bright carbon steel material (**CX**) with a precision low-friction metallic coating for difficult Flexo and Gravure doctoring applications. This material is not recommended to be used in Flexo containment applications. **CXP4** is beneficial when running chrome gravure cylinders with minimal engraving. **CXP4** is available in 6 and 8 mil thicknesses with Superhoned® bevels.



**“QRP4”** = Supercoat™ Gold: Special tool steel metallurgy with very long life (**QR**) and a precision low-friction metallic coating for difficult Flexo and Gravure applications. This material is not recommended to be used in Flexo containment applications. **QRP4** is beneficial when running chrome gravure cylinders with minimal engraving. **QRP4** is available in 6 and 8 mil thicknesses with Superhoned® bevels.



**“QRHP”** = Supercoat™ Gold with Laser Hardened Tip: Super Gold material with an added laser hardened tip (**QRH**) and a precision low-friction metallic coating for difficult Flexo applications. This material is not recommended to be used in Flexo containment applications and cannot be used with chrome cylinders. **QRHP** is available in 12 mil thicknesses with standard bevels.



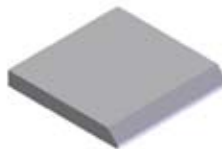
Not all bevels are available with all thicknesses listed and other thicknesses and/or bevels may be available. Call Allison Systems for guidance with selecting the correct product for your application.

## ***Metal*** doctor blade edge shapes summary: \_\_\_\_\_

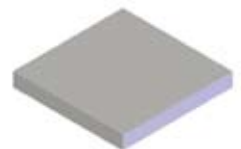
**“SUP”**  
Superhoned®  
(4.5° bevel)



**“STD”**  
Standard  
(15° bevel)



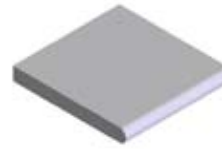
**“UNH”**  
‘Square-edge’  
Use for backer  
blade applications.



**“SUS”**  
Superhoned<sup>(R)</sup>  
Plus (2.2° bevel)



**“RND”**  
Rounded



*Contact us for recommended  
tip geometry and dimensions  
for your applications.*

***Metal* doctor blades for *Gravure*:**

shapes:



**"SUP"**  
Superhoned®  
(4.5° bevel)

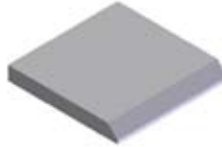


**"SUS"**  
Superhoned<sup>(R)</sup>  
Plus (2.2° bevel)

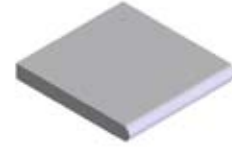


Minimal tip growth as the blade wears with small tip deflection under applied loading.

**"STD"**  
Standard  
(15° bevel)



**"RND"**  
Rounded



Some inks require a rigid tip for maximum cylinder clean-up.

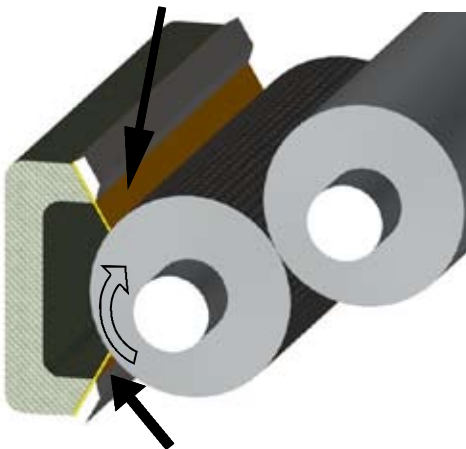
For special situations involving fairly coarse cylinder engraving screens.

materials:



***Metal* doctor blades for *Flexo*:**

Doctor blade shapes:

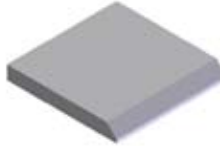


**"SUP"**  
Superhoned®  
(4.5° bevel)



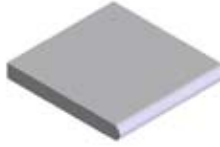
Minimal tip growth as the blade wears with small tip deflection under applied loading.

**"STD"**  
Standard  
(15° bevel)



Some inks require a more rigid tip for maximum anilox clean-up.

**"RND"**  
Rounded



For anilox rolls with fragile cell walls or rough ceramic and where maximum anilox clean-up is not required.

***Flexo Containment (sealer) blade shapes:***

Use thin, flexible plastic blades, (see next pages) or specially sized metal blades. Contact us for containment blade configurations to protect your aniloxes.

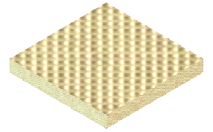
materials:



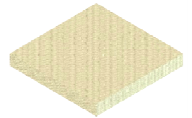
## ***Plastic*** doctor blade material summary:

Composite blades are used on laser engraved ceramic aniloxes for longer wear at high speeds. Unreinforced plastic blades wear very well but may deform under normal doctoring loads. They can be used as containment blades and as doctors in gravure and flexo if supported by metal or composite back-up blades. (contact us)

**"FR"** = Glass composite: For flexo doctor and containment blades on ceramic anilox rolls with < 500 lpi screens. **FR** provides longer life than carbon steel metal blades and print quality that approaches metal blades. **FR** is available in 20 mil thickness with a seal relief bevel.



**"FRS"** = High-glass composite: For flexo doctor and containment blades on ceramic anilox rolls with >500 lpi screens and abrasive water inks. **FRS** provides longer life than carbon steel metal blades and print quality that approaches metal blades. **FRS** is available in 14 and 20 mil thicknesses with a seal relief bevel.



**"GR"** = Graphite Composite: For flexo doctor and containment blades on larger ceramic anilox rolls and abrasive water inks. **GR** is commonly used for higher-end graphics in corrugated applications. **GR** is available in 20, 25, and 35 mil thicknesses with a seal relief bevel.



**"MY"** = Mylar Polyester: **MY** is a good choice for flexo containment blade applications since it will allow debris to pass by the blade instead of trapping the debris behind the blade like metal blades can. To further allow debris to pass by the blade, use a blade width that is 1/16" to 1/8" wider than the doctoring blade. **MY** is available in 7.5 and 14 mil thicknesses.



**"PBT"** = Hard polyester: **PBT** is another good choice for flexo containment blade applications. **PBT** has similar characteristics to **MY** and is available in a 20 mil thickness.



Not all bevels are available with all thicknesses listed and other thicknesses and/or bevels may be available. Call Allison Systems for guidance with selecting the correct product for your application.

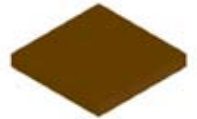
## ***Plastic*** doctor blade material summary (Continued):

---

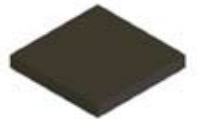
“**DE**” = Acetyl: **DE** can be used in flexo doctor and containment applications that don’t require high print quality. **DE** provides longer life than carbon steel metal blades and can reduce cut hazards associated with metal blades in chambered applications. **DE** is available in 30, 50, and 62 mil thicknesses with un-honed, standard, and seal relief bevels.



“**DET**” = Acetyl with lubricant: **DET** can be used in flexo doctor and containment and some gravure applications that don’t require high print quality. **DET** has all the properties of the **DE** material with added lubrication. **DET** is available in 30 and 35 mil thicknesses with un-honed, standard, and seal relief bevels.



“**NY**” = Nylon with lubricant: **NY** can be used in special gravure applications that don’t require high print quality. The lubricant in **NY** can help extend the life of chrome cylinders. **NY** is available in 62 and 90 mil thicknesses with un-honed and standard bevels.



“**PE**” = Low Wear Polyethylene: PE can be used in special gravure applications that don’t require high print quality and flexo containment blades. Since PE material is soft, there is a risk of particle embedment so use with caution. PE is available in 15, 30, 50, 62, 80, and 90 mil thicknesses with un-honed and standard bevels.



Not all bevels are available with all thicknesses listed and other thicknesses and/or bevels may be available. Call Allison Systems for guidance with selecting the correct product for your application.

## ***Plastic*** doctor blade edge shapes summary:

---

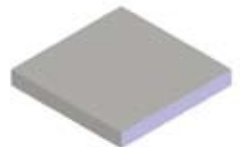
“**SLR**”  
Seal Relief  
(US Pat 5,027,513)



“**STD**”  
Standard  
(45° to 55°  
Depending on  
Material.)



“**UNH**”  
Un-honed



***Plastic* doctor blades for *Gravure*:**

**shapes:** Note: When using plastic blades in a gravure application, they typically need to be supported by a steel backer blade. Contact us for backer blade information.



**"STD"**  
Standard



Provides good tip support and wiping characteristics.

**materials:**

**DET**



**PE**

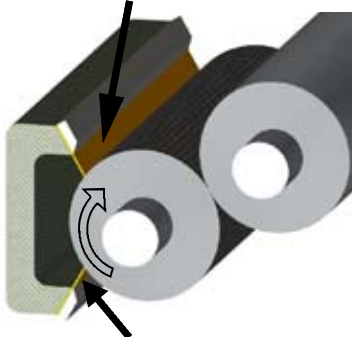


**NY**



***Plastic/composite* doctor blades for *Flexo*:**

**Doctor shapes:**



**"SLR"**  
Seal Relief  
(US Pat 5,027,513)



**"STD"**  
Standard

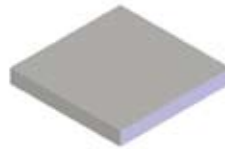


Provides good tip support and wiping characteristics.

Long bevel profile to help reduce ink leakage past the chamber end seals.

**Containment shapes: Use**

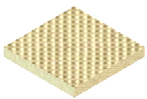
**"UNH"**  
Un-honed



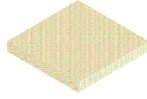
or above **Doctor** shapes.

**Plastic/Composite Doctor blade materials:**

**FR**



**FRS**



**GR**



**PBT**



**DE**



**DET**

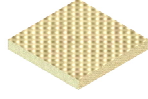


**Plastic/Composite Containment blade materials:**

**MY**



**FR**



**FRS**



**GR**



**DET**



**PE**



**PBT**



**DE**



## Doctor blade packaging:

### “BOX”

Dispenser Box for individual cut to length blades and backers.

Available with material codes: **CB**, **CX**, **CXP4**, **DET**, **MY**, **QR**, **QRH**, **QRP4**, & **SS**.

Some restrictions apply, check for availability with your size and quantity when ordering.



### “CBX”

Coil Dispenser Box for continuous coil lengths up to 300 ft., or smaller precut blades attached end-to-end.

Available with all material codes.

Some restrictions apply, check for availability with your size and quantity when ordering.

### “TRA”

Tray packaging is the most economical method of packaging multiple blades and backers that are less than 120” long, and makes blades safely and easily accessible for most applications.

Available with all material codes.

Some restrictions apply, check for availability with your size and quantity when ordering.

