

SPECIALTY COATINGS SHIELD PUNCHES AGAINST WEAR

Do you deal with excessive galling? Are your punches wearing out faster than normal? Wilson Tool International offers four unique coatings for punch press applications to solve problems like these and more. Each coating provides distinct advantages depending on the problem you'd like to solve.



Optima®

- Surface hardness: HRC 95
- Outlasts untreated tools by up to 5-7 times
- Best for wear on abrasive materials in piercing applications
- Reduces galling on hard materials
- Increases lubricity by controlling galling on hard materials
- Minimum dia./width for coating = .060" [1.53mm]



Wearbeater

- Titanium nitride (TiN)
- Good for wear on most materials
- Reduces galling on most materials
- Increases lubricity on most materials
- Minimum dia./width for coating = .060" [1.53mm]



Nitrex®

- Surface hardness: HRC 70
- Best for wear on galvanized
- Reduces galling on galvanized
- Better for wear and lubricity on most other materials
- Not recommended for wear on hard materials
- Minimum dia./width for coating = .125" (3.18mm)



Slip-Max®

- Best for reducing galling on soft materials
- Best for forming (stripping) in abrasive materials such as stainless steel and aluminum
- Increases lubricity on all materials
- Not recommended for piercing applications in abrasive materials
- No minimum dia./width for coating

COATING SOLUTIONS

Which coating is best for your application?

The following table indicates which coatings are effective in a variety of typical punching situations and ranks the coatings in order of “good”, “better” or “best” solution. For example, if you have stripping problems when forming stainless steel, a good coating would be Wearbeater, a better solution would be Nitrex® and the best option would be Slip-Max®.

				
COATING RECOMMENDATION BY APPLICATION	WEARBEATER	OPTIMA	NITREX	SLIP-MAX
PROBLEM/APPLICATION	WEARBEATER	OPTIMA	NITREX	SLIP-MAX
Punch wear piercing varied materials	●	★		
Punch or die wear piercing stainless steel	●	★		
Punch wear piercing galvanized	●	▲	★	
Punch or die wear piercing aluminum	●		▲	★
Galling on punch in stainless steel	●	▲		
Galling on punch in galvanized	●	▲	★	
Galling on punch in aluminum	●		▲	★
Stripping problems when forming in stainless steel	●		▲	★
Stripping problems when forming in aluminum	●			★
Stripping problems when piercing in stainless steel	●	★		
Stripping problems when piercing in aluminum	●		▲	★
KEY GOOD ● BETTER ▲ BEST ★				

For more information, visit [wilsontool.com/punching](https://www.wilsontool.com/punching), call our tooling technicians at 800.328.9646 or contact your sales engineer.

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Wilson Tool International
punching@wilsontool.com | 800.328.9646