# ORGAN® NEEDLES INFORMATION

### PD PLATING





Uneven quality due to needle abrasion and time lost for changing needles have been continual problems in efforts to improve quality and productivity of sewing industries. The development of Organ's PD/Perfect Durability needles make significant strides to addressing these problems and improving profitability.

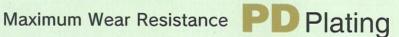




PD/Perfect Durability: Titanium Nitride Finish Assures Greatest Wear Resistance

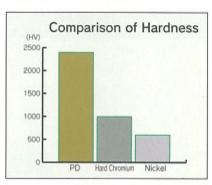
Organ's PD/Perfect Durability plating provides a smoother and more durable finish on needles to make them more resistant to wearing out.





# More Durable Finish / Longer Needle Life

MATERIALS	FINISHED PRODUCTS
Generally Tough Materials	Jackets
- Woven Denim	Jeans
- Nylon Fabric	Sport Shoes
Leather	Leather Apparel
Vinyl	Luggage, Seating, Industrial Products
Elastics	Foundation Garments
Compound Materials with	Automobile Components
Plastic, Carbon, Fiberglass	



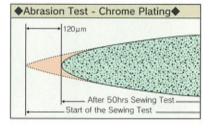


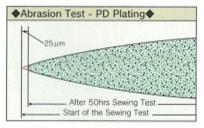
### PD/Perfect Durability

The PD/Perfect Durability finish is uniformly layered with an ultra hard coating (HV2000) of vaporized Titanium Nitride over precision made, highly polished and hardened layer and chromium-plated needles. The result is a needle with the ultimate properties for resistance to wear. (PAT.P)

#### Anti-Abrasion Resistance

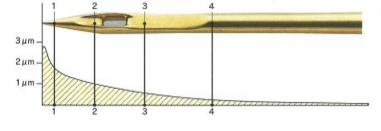
Exhaustive tests under high speed sewing conditions during extended periods of time demonstrate that PD/Perfect Durability needles have twice the hardness and up to five times the anti-abrasion resistance as compared to chromium plated needles. The wear resistant properties of PD/Perfect





Durability needles are particularly evident when sewing thick or abrasive materials. These tests prove that the PD/Perfect Durability finish provides the most effective protection from wear.

#### Distribution of Titanium in thickness



#### ■ PD/Perfect Durability Finish Puts More Titanium Nitride in the Needle Point

Abrasion or damage to the needle's point leads directly to the needle's bending and breaking. Keeping the precisely designed shape of the needle's point is the chief factor to achieving longer needle life. Organ's advanced technology improves the adhesion of Titanium Nitride layers which is especially important in the needle's point. The point of PD/Perfect Durability needles exhibits extremely high anti-abrasion resistance and durability.

designation on ORGAN packaging.

-10pcs-DP×17 Size 120/19PD \*\*PD/Perfect Durability needles can be supplied in all types of ORGAN needles. Please contact our representative for further information.



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