



# 2025

## **NEWBEX 250/450/650/850**

NEW Bio Enhanced eXecution

NEWBEX uses a high-pressure system to penetrate the skin without a needle.

revival cell  
**wigomedi**

Painless. Fearless. Infection-Free. NEWBEX sets the standard.



# Product Description



## Product

NEWBEX250 (Aesthetic)  
NEWBEX450/650/850 (Medical)



## Technique

Hollow Needle Injection



## Manufacturer

Technical Partnership ODM



## Medical Certification

KFDA grade 2 CE / FDA  
ISO 13485



## Distributor

wigomedi



## Quality Certification

# Field of application

## Micro NEEDLES areas

### Applications of Transdermal Drug Delivery Systems (DDS)

Microneedle-based methods are well-suited for transdermal drug delivery and are widely used in aesthetic treatments and vaccinations.

However, conventional transdermal methods often involve pain and scarring.

By replacing them with microneedles, these issues can be significantly reduced or eliminated.



**Aesthetic  
Procedures**



**Vaccination**

# Field of application



## Vaccination

Influenza  
Polio  
Herpes Zoster  
COVID-19



## Self-administration

Diabetes Treatment(Insulin)  
Osteoporosis(Teriparatide)  
Obesity Treatment(Semaglutide)  
Dementia Treatment(Donepezil)



## Aesthetic Procedures

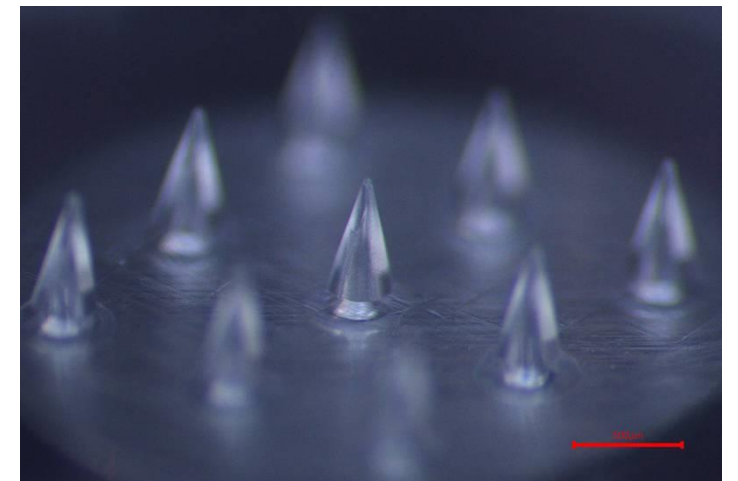
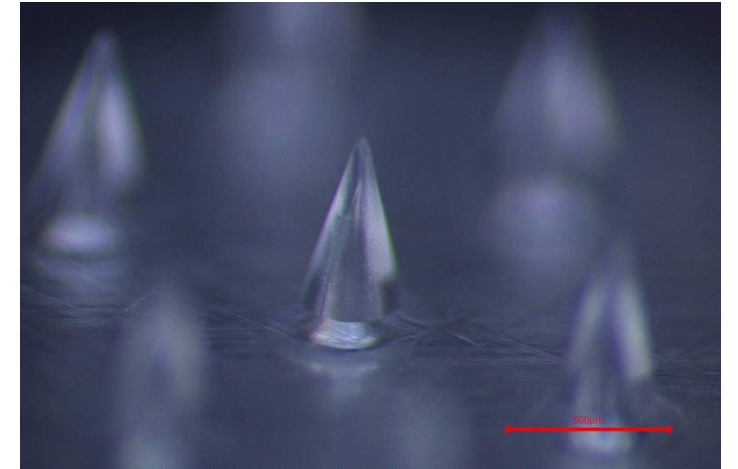
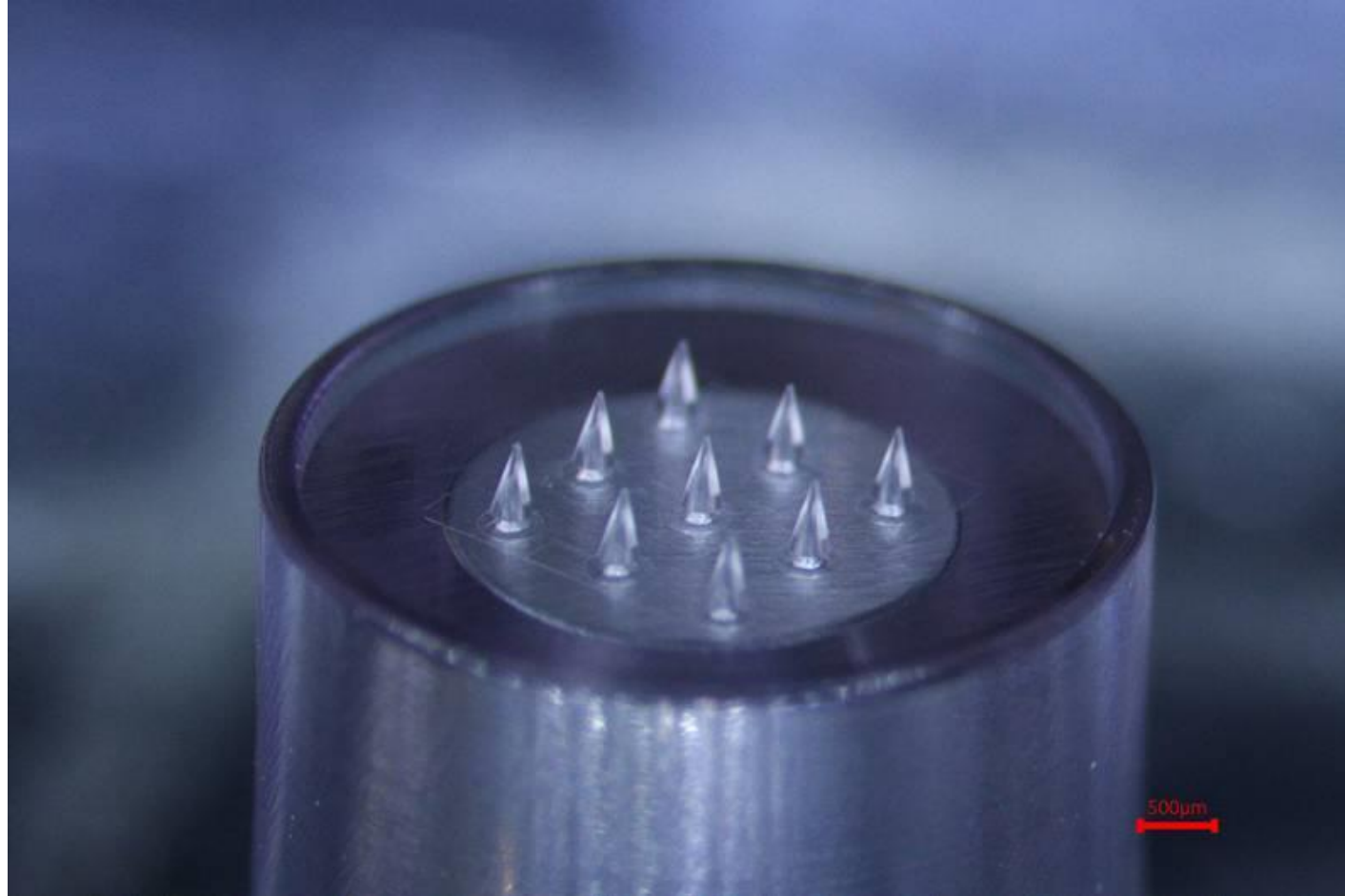
Filler  
Botox  
Rejuran  
Juvelook



## FRE FILLED

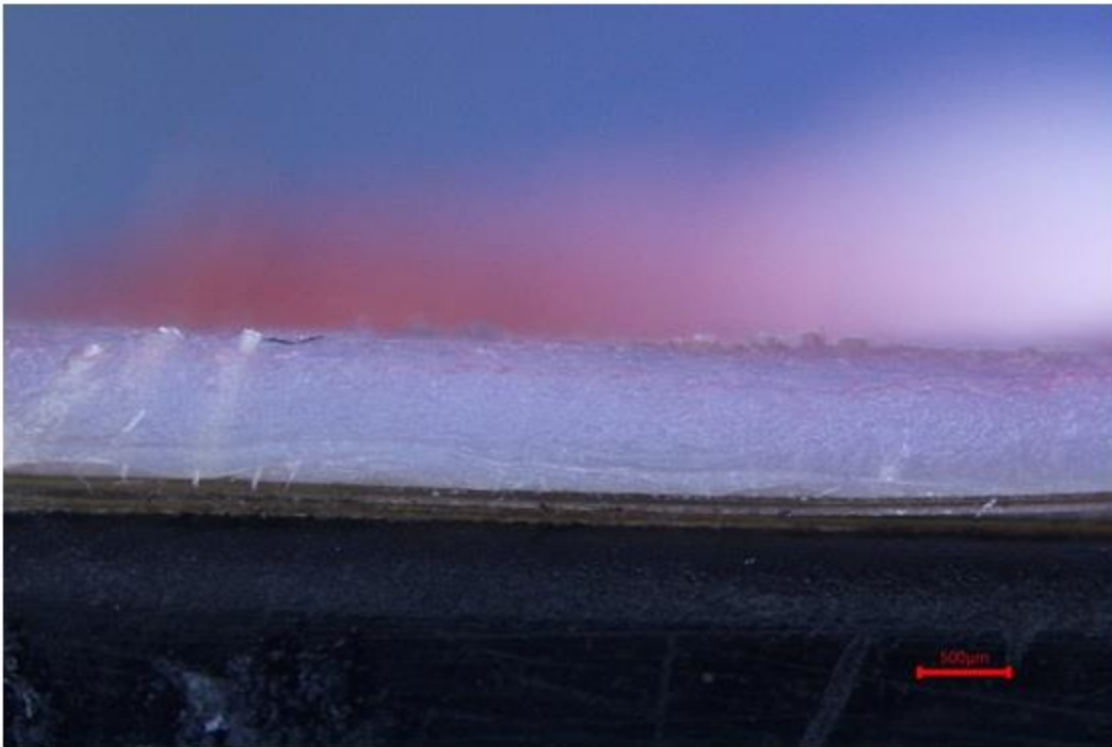
Fre filled  
OEM Manufacturing & Supply

# NEWBEX View Details

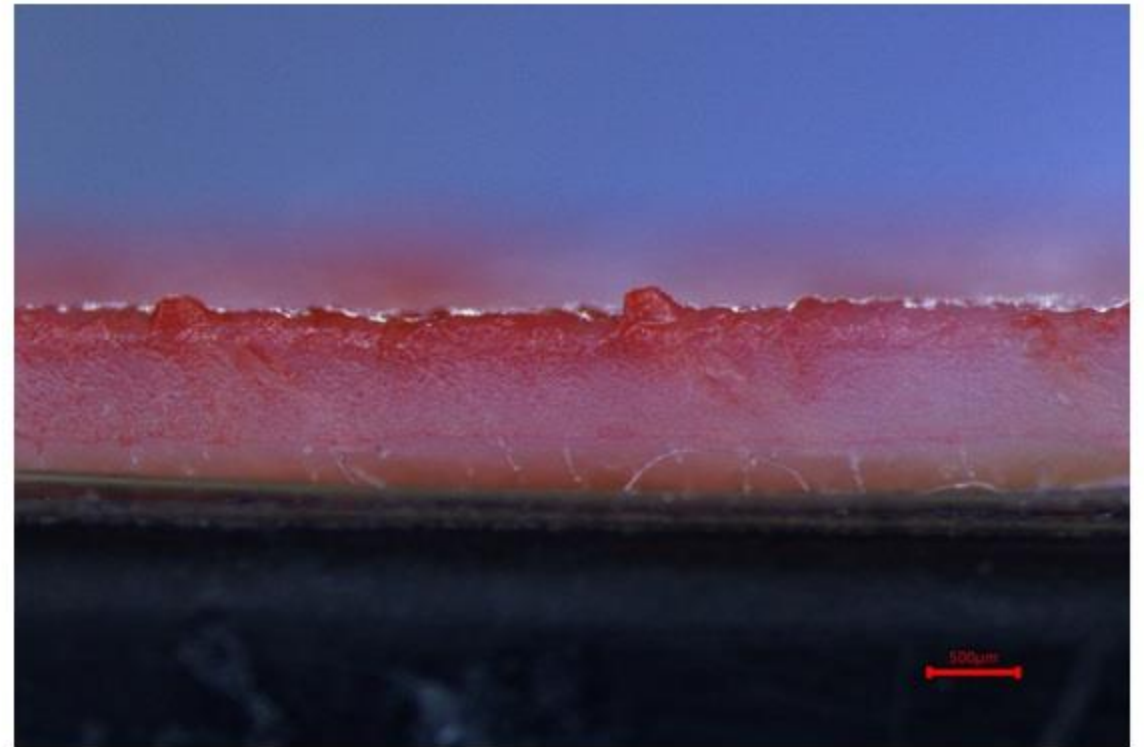


# NEWBEX Badge Test

NEWBEX-250™ Pre-Treatment

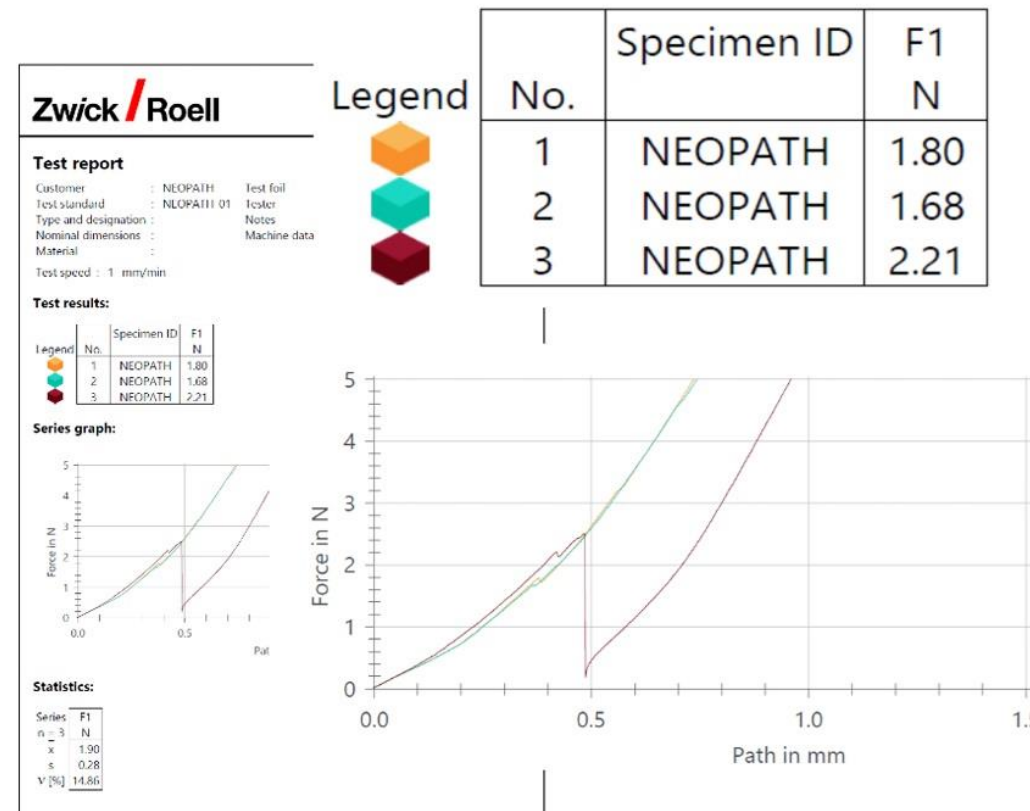
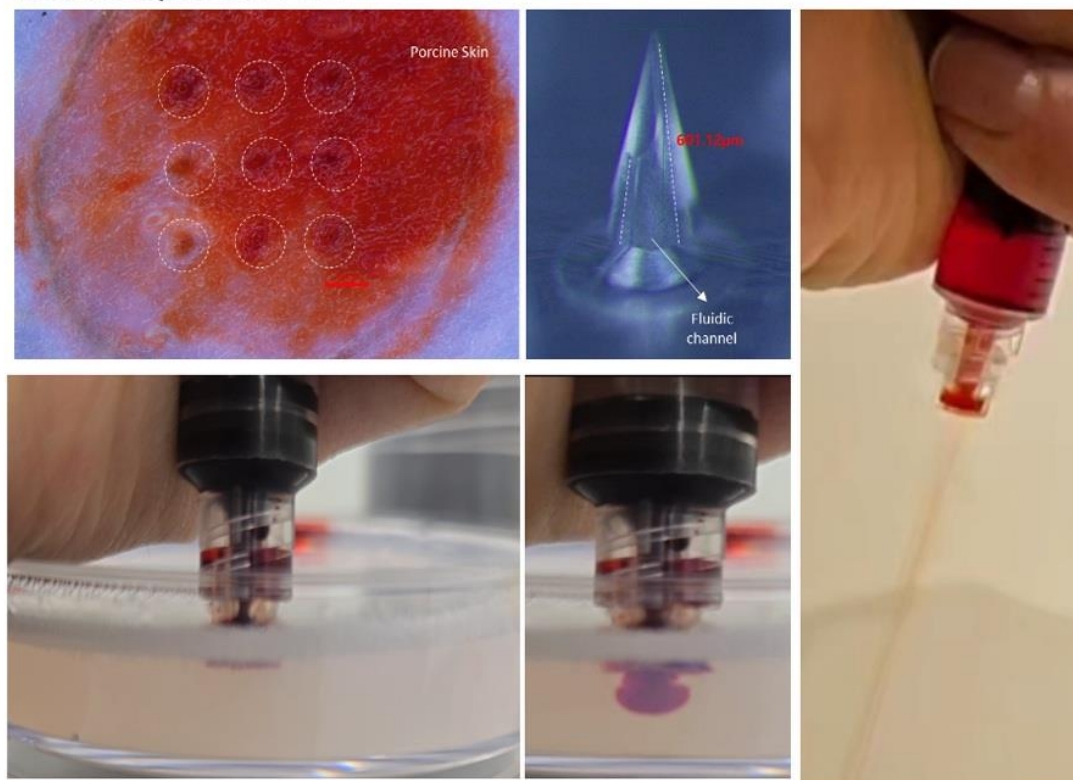


NEWBEX-250™ Post-Treatment

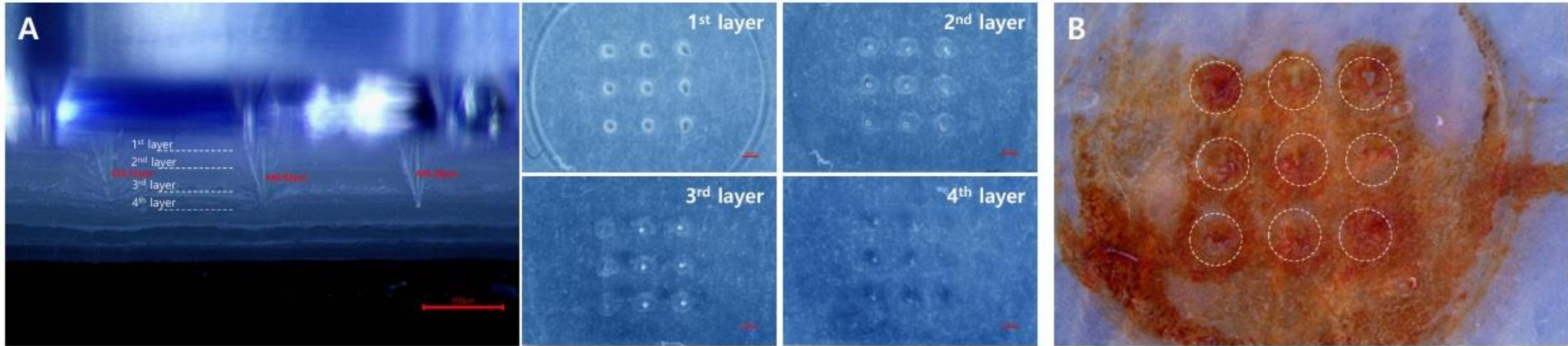


# Animal Skin Penetration Test

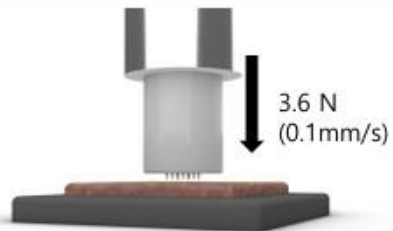
Animal skin penetration test



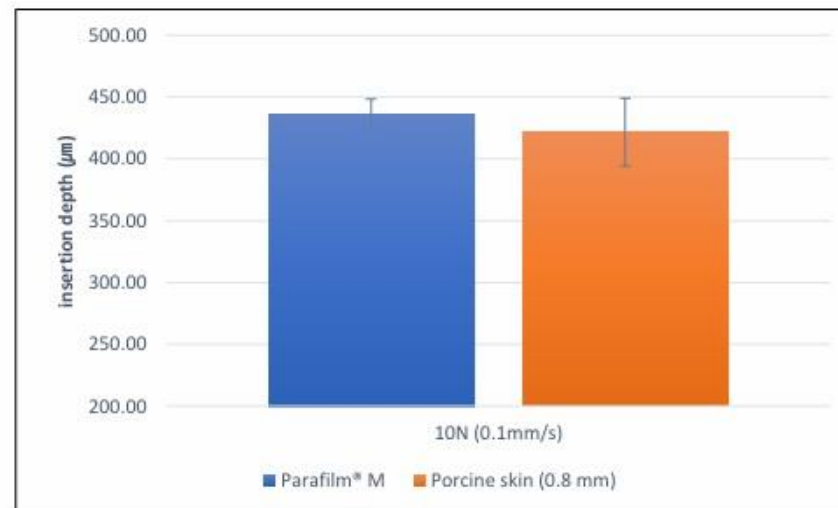
# Animal Skin Penetration Test



Insertion depths of NEWBEX™ (600 µm) in Parafilm® M (Ⓐ) and in neonatal porcine skin (Ⓑ) applied by a Texture Analyser (10 N).



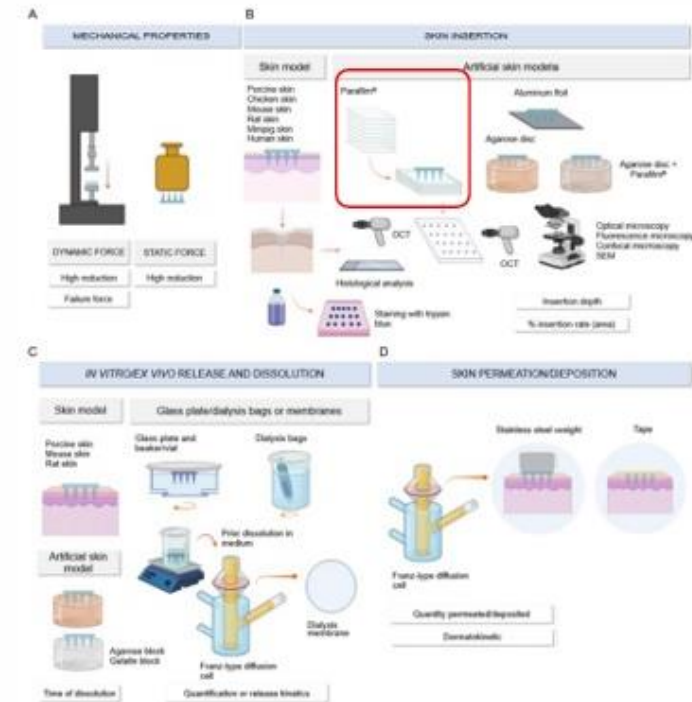
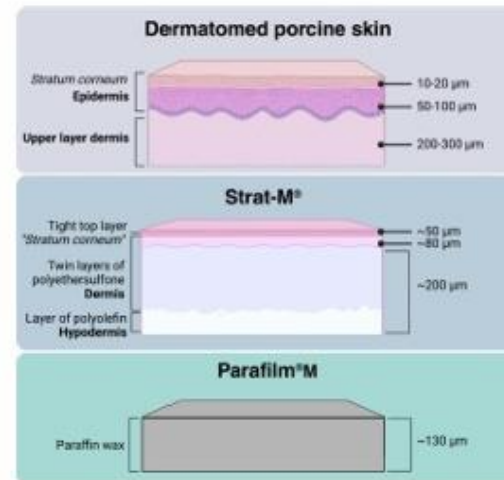
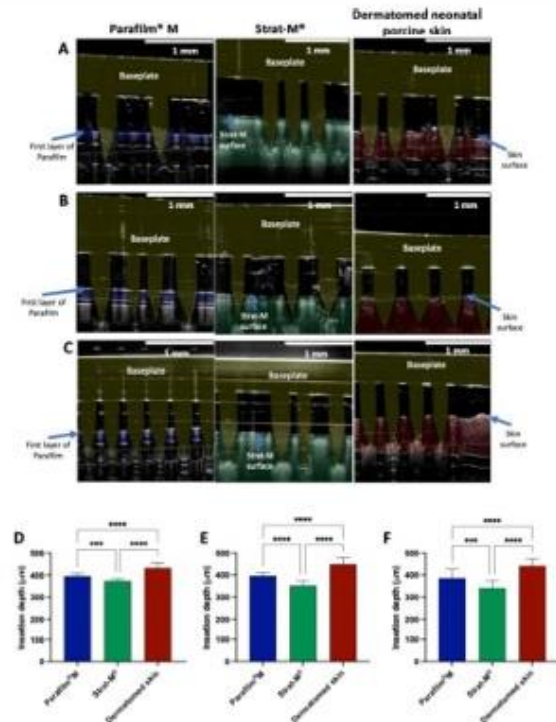
	insertion depth (µm)	
	Parafilm® M	Porcine skin (0.8 mm)
Average	436.54	440.78
SD	11.58	27.43
RSD	2.65 %	6.22%



# APPENDIX. Alternative Testing to Animal Experiments 1

As a substitute for porcine skin, Parafilm® M exhibits similar physical properties for evaluating the insertion depth and force of microneedles.

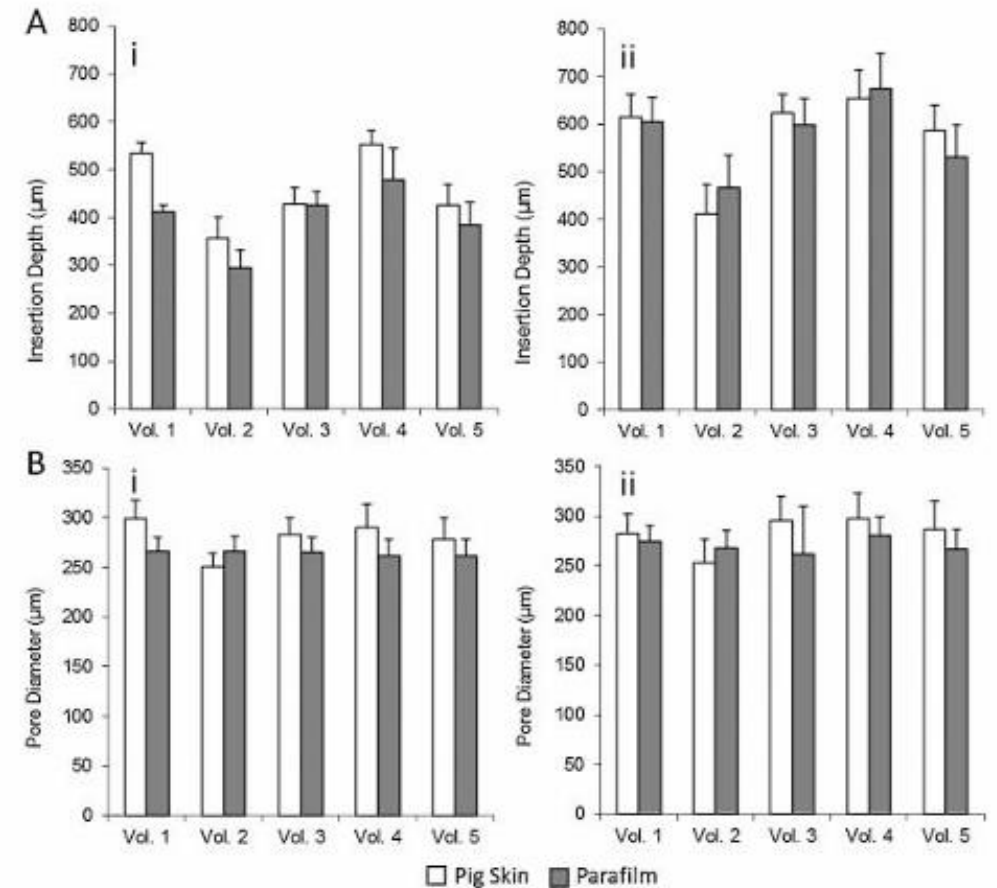
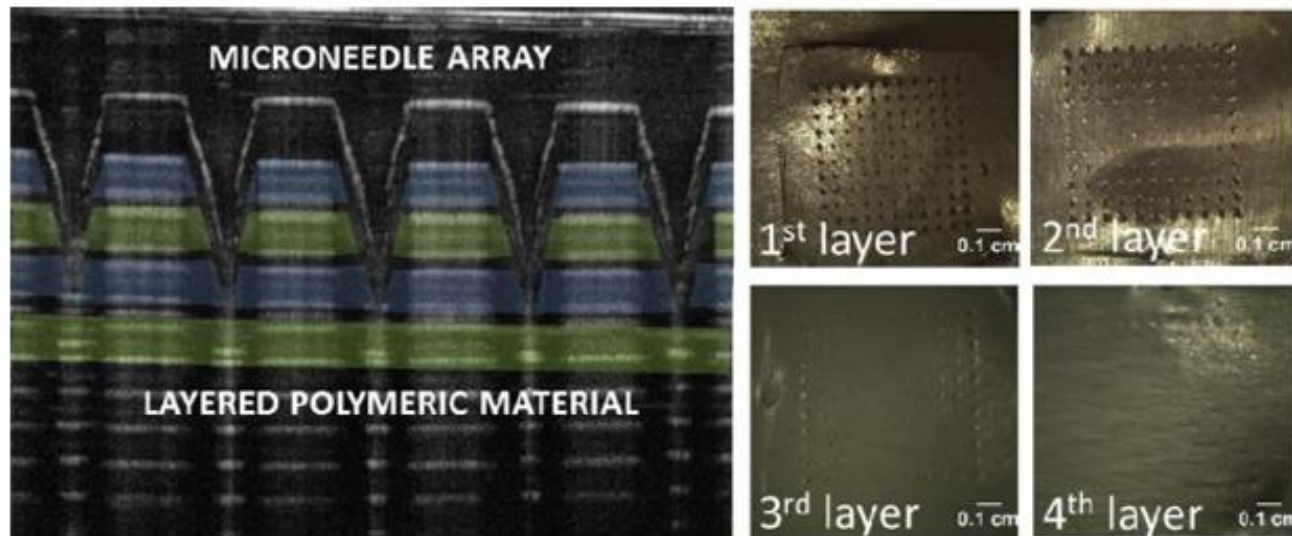
It can be used as an alternative to animal testing and, due to its uniform thickness, is expected to produce consistent permeability test results compared to actual skin.



Anjani, Qonita Kurnia, et al. "Parafilm® M and Strat-M® as skin simulants in in vitro permeation of dissolving microarray patches loaded with proteins." *International Journal of Pharmaceutics* 655 (2024): 124071.

Weimer, Patricia, Rochele Cassanta Rossi, and Leticia Scherer Koester. "Dissolving microneedles developed in association with Nanosystems: A scoping review on the quality parameters of these emerging Systems for Drug or protein transdermal delivery." *Pharmaceutics* 13.10 (2021): 1601.

# APPENDIX. Alternative Testing to Animal Experiments 2

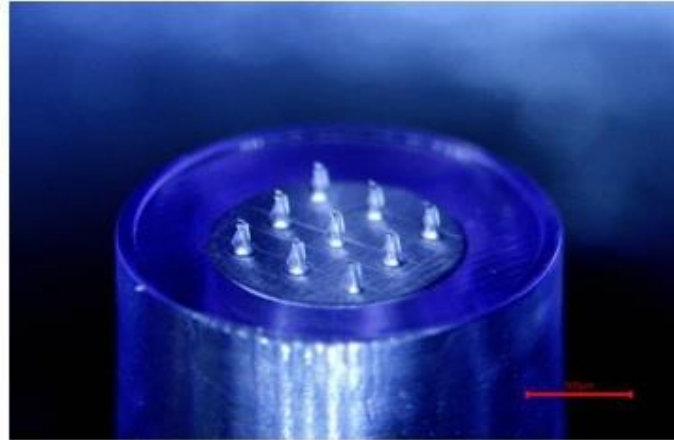


Larrañeta, E., Moore, J., Vicente-Pérez, E. M., González-Vázquez, P., Lutton, R., Woolfson, A. D., & Donnelly, R. F. A proposed model membrane and test method for microneedle.

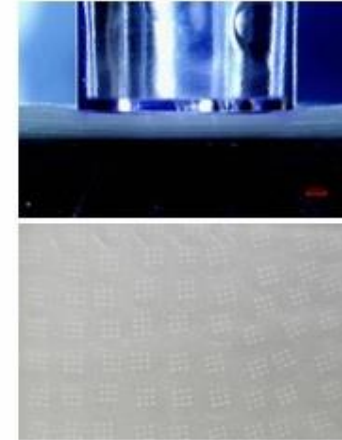
# Microplastic Detection Test Based on Usage Frequency



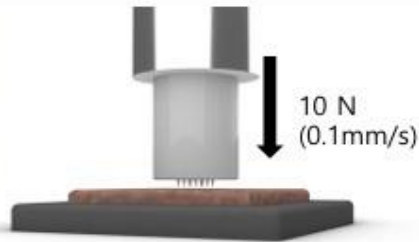
Before insertion



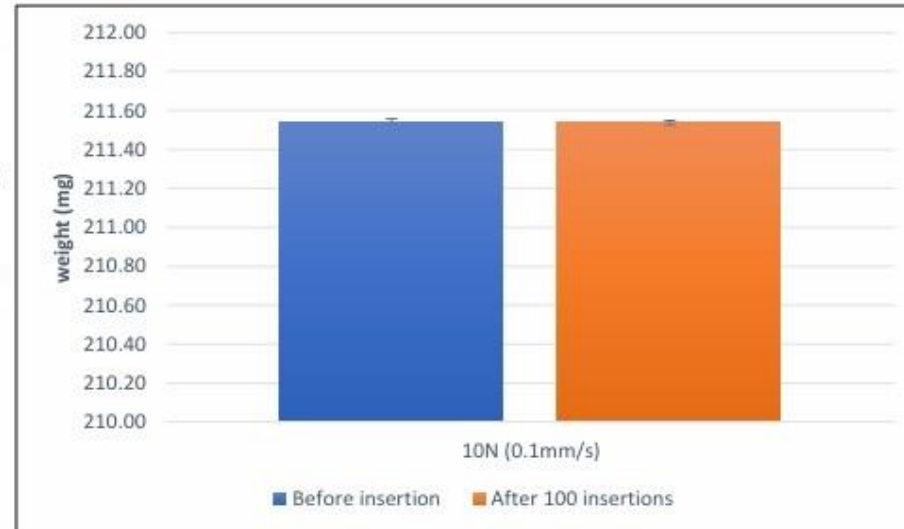
After 100 insertions (10 N) on Parafilm®



Punctured parafilm® M

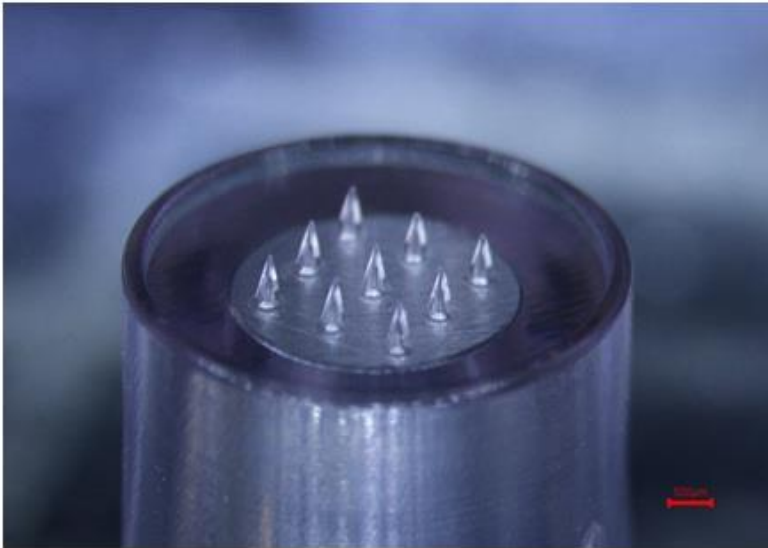


	Weight (mg)	
	Before insertion	After 100 insertions
Average	211.54	211.54
SD	0.02	0.01
RSD	0.01%	0.01%

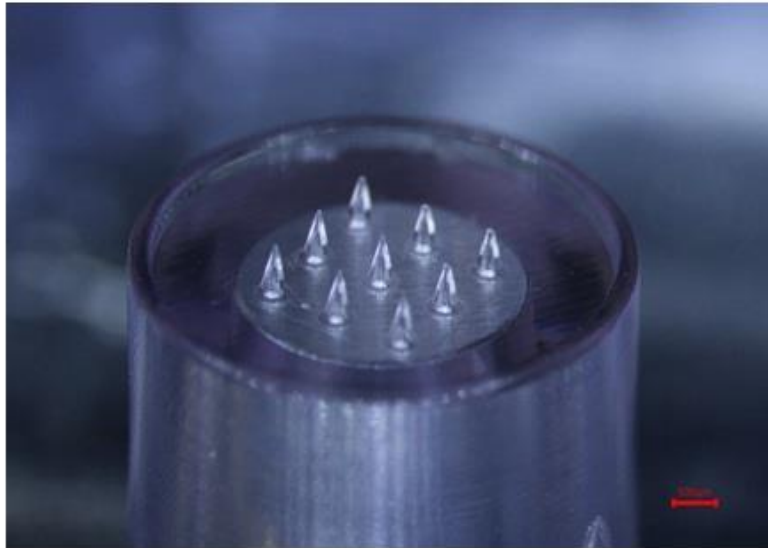


# Performance Evaluation After Over 20 Applications

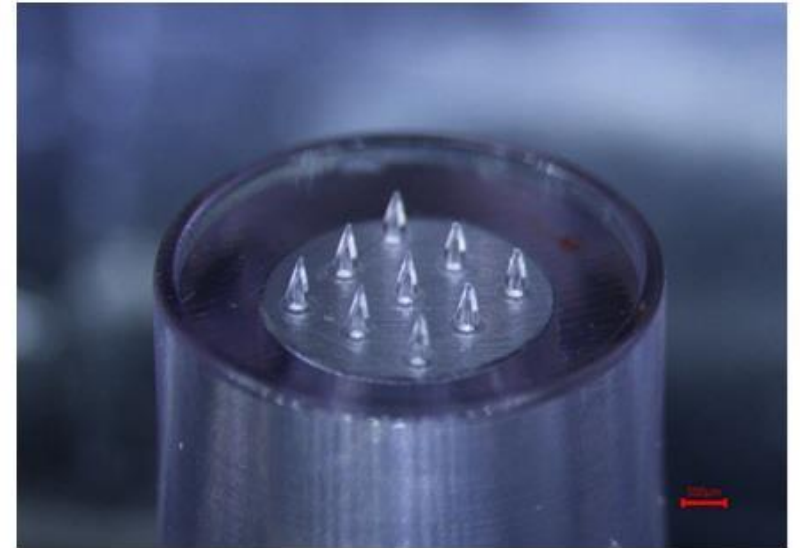
After 5 Uses



After 10 Uses



After 20 Uses



# Problem Solved

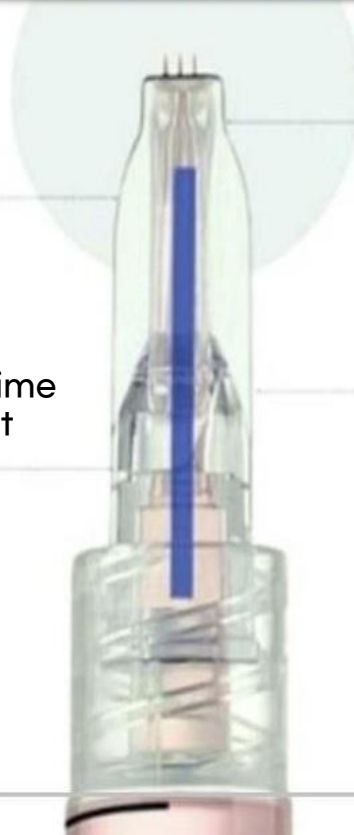


No Crying During Infant Vaccination  
(4 Weeks Old, BCG Vaccination)

Providing a Safer  
Procedure

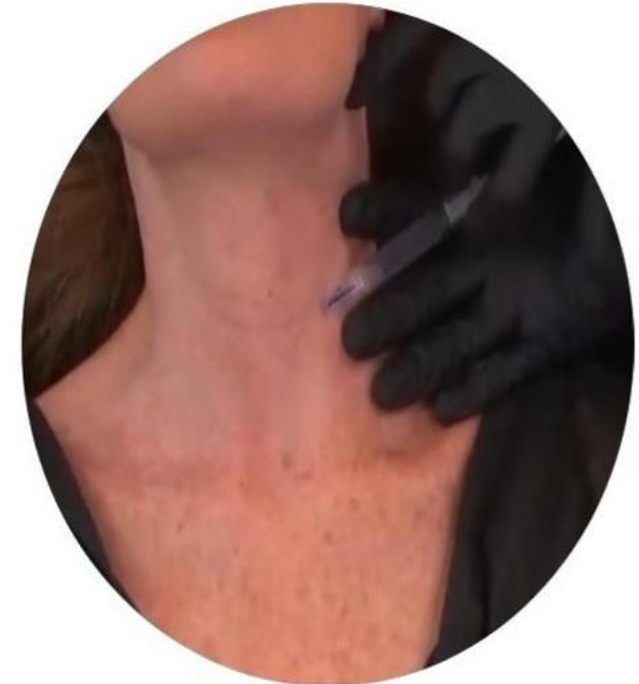
Reducing Procedure Time  
for Faster Treatment

0.6MM  
MicroNeedle



Minimizing Pain with  
Ultra-Fine Needles

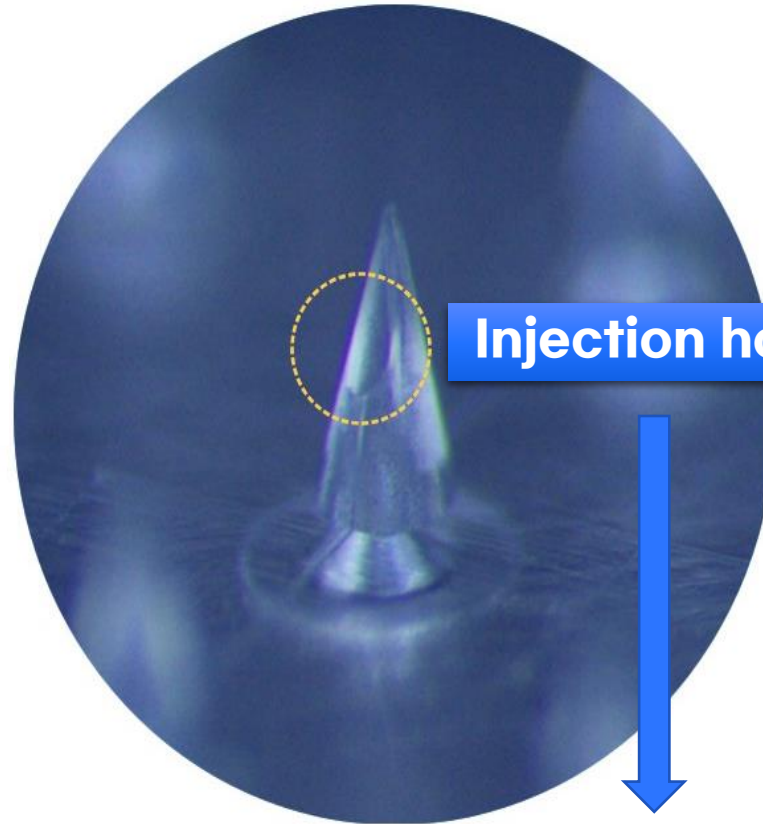
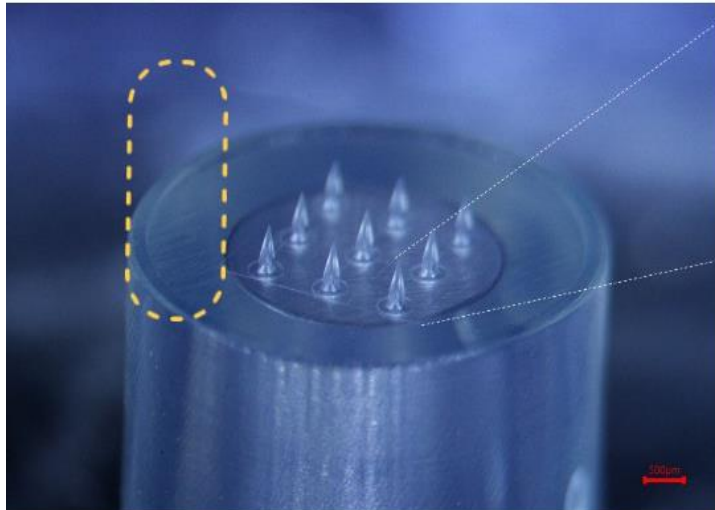
Administering at  
the Exact Depth for  
Optimal Results



Improving Areas Previously  
Inaccessible for Treatment  
(Eye Wrinkles, Neck Wrinkles)

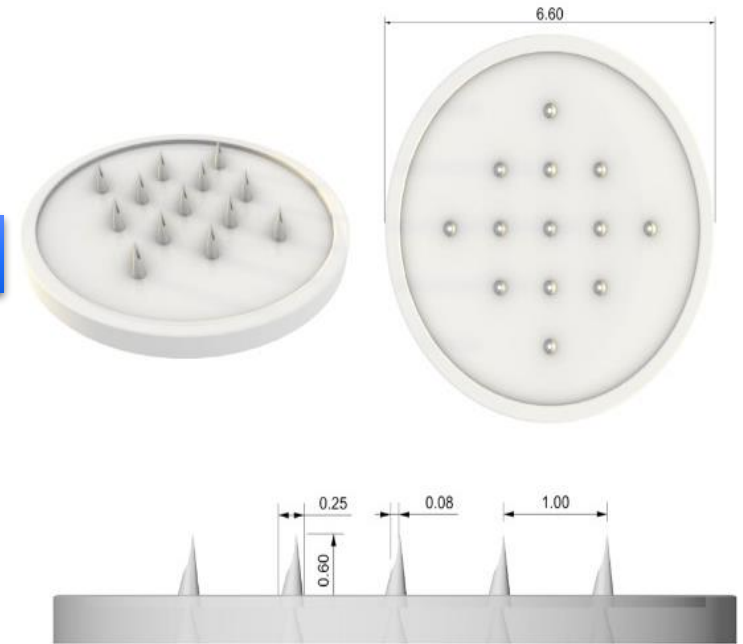
# Problem Solved

No needle-induced pain or tissue damage  
The safety guide disperses both pressure and pain for added comfort



Injection hole

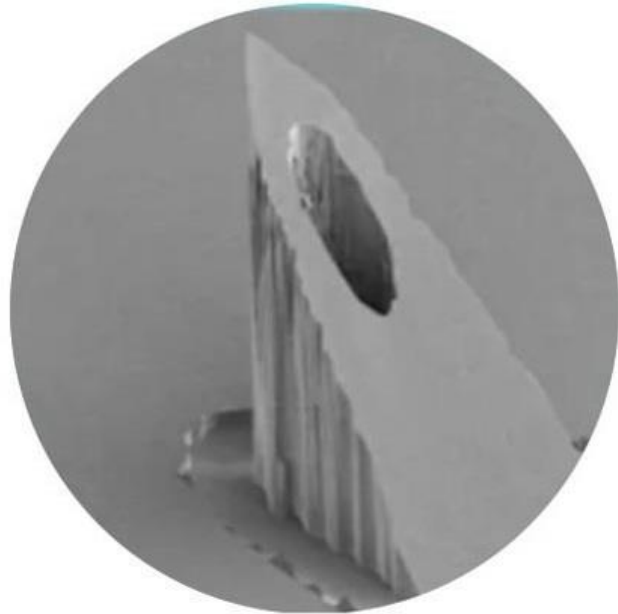
Separation of penetration point and  
injection hole for enhanced precision  
No blockage or disruption to skin tissue  
during administration



Diameter: 0.66 mm  
Needle Height : 0.60 mm  
Needle inner diameter : 0.08 mm  
Needle spacing : 1.00 mm

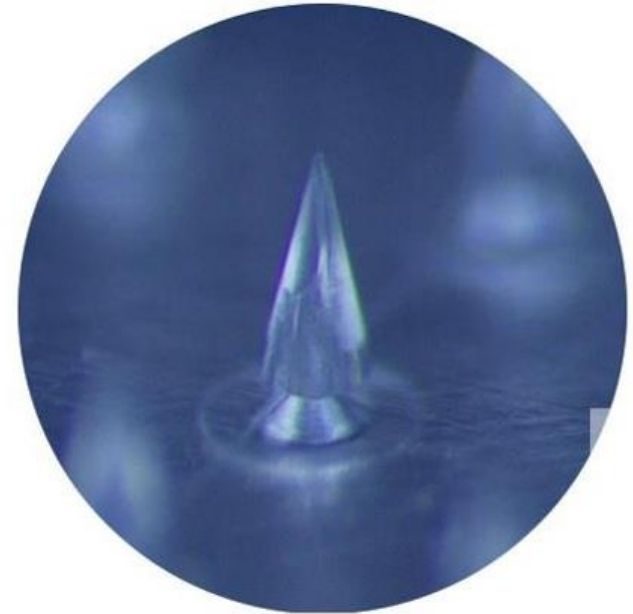
# Product Comparison

## Angled Injection



Straight Triangular-Shaped Needle  
Position Variability Depending  
on Injection Angle

## Vertical Injection



Asymmetrical Conical Design  
Precise Targeting of Injection Site

# Product Comparison

## NANOSOFT

### Needle/Adapter Assembly-Type

For Standard Syringes

- Adapter includes drug **flow path**
- Significant drug residue **remains**
- Precise injection is **not possible**



## NEWBEX

### Needle/Adapter Integrated-Type

For Luer Lock Syringes

- **No drug flow path** in the adapter
- **No drug residue**
- **Enables** precise injection



01



## NEWBEX250 (Aesthetic-Focused)

- Designed for procedures such as skin boosters, PRP, and fillers
- Precision spray angle minimizes bruising and swelling
- Minimalist design tailored for premium clinics

02



## NEWBEX450 (Standard Medical Use)

- Suitable for basic injection treatments
- Ideal for insulin, vitamin, and antibiotic delivery

03



## NEWBEX650 (High Durability)

- Maintains spray pressure even with repeated procedures

04



## NEWBEX850 (Mass Vaccination Type)

- Capable of delivering hundreds of doses per day



# WIGOMEDI Slogan



## **NEWBEX : The Technology That Transforms Your Procedures**

By simply changing the syringe,  
the patient's response has improved.  
For doctors, it offers precision and efficiency for patients,  
it ensures comfort and painlessness. The solution is NEWBEX.

Now, accurate drug injection is possible  
without the need for a needle.



2025

**Thanks for your attention**

revival cell  
**wigomedi**

NEWBEX uses a high-pressure system to **penetrate** the skin without a needle

