



# Perfactory® Materials

## E-Shell® 200 Series

EnvisionTEC's E-Shell® 200 Series is a low viscosity liquid photopolymer that produces strong, tough, water-resistant ABS like parts with high detail that are Class IIa biocompatible according to ISO 10993/Medical Product Law and are CE certified for use as hearing aid products, otoplastics, and medical devices. The E-Shell® 200 Series is available in several different skin tone colors and can be customized on demand. Because of their opaque appearance similar to production plastic they can also be used for non-medical applications.

The E-Shell® 200 Series has been designed especially for applications in the Medical Device and Hearing Aid industries being CE marked as a medical product. E-Shell® 200 mimics traditional engineering plastics ABS, which makes it usable in many other non-hearing-aid applications.

Material Properties*		
ASTM Method	Description	E-Shell® 200
D638M	Tensile Strength Elongation at Break Elongation at Yield Modulus of Elasticity Poisson's Ratio	57.8 MPa 6% 3.2% 2,400 MPa 0.21
D790M	Flexural Strength Flexural Modulus	103 MPa 2,300 MPa
D256A	Izod Impact - Notched	21.1 J/cm
D2240	Hardness (Shore D)	83
D1004	Graves Tear	127,000 N/m
D570-98	Water Absorption	0.12%

Material Thermal and Electrical Properties*		
ASTM Method	Description	E-Shell® 200
D-149-97a	Dielectric Strength	14.6
E1545-00	Glass Transition Temperature	109°C

\*All data provided is preliminary data and must be verified by the individual user.

Recommended Machines
Desktop XL, DDSP, Mini DDSP, Perfactory® 3 DSP, Perfactory® 4 DSP, Perfactory® 4 DSP XL

Applications
Hearing Aid

## Material Properties

- » Tough function prototypes
- » Appearance models with minimal finishing
- » Durable concept models with high cross linkage
- » High humidity environment applications
- » RTV patterns
- » Water resistant applications
- » Hearing aid devices manufacturing

## E-shell 200® Series (Opaque for Ear Shells)



200 Pink



201 Tan



202 Mocca



203 Beige



204 Cocoa



205 Brown

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