

# EM+21

## High Elasticity Resin

EM+21 is a high-performance elastic material with superior resilience, tear resistance and bending resistance. EM+21 cooperates with LEAP™ ultra-fast 3D printing technology and parametric design, the model size is controlled accurately, and the details are perfect. It is widely used in sports shoe midsoles, industrial cushioning, personal wear and other high-rebound cushioning and multiple bending fields.

EM+21 passed the "ISO 10993-10:2010 Biological evaluation of medical devices-Part 10:Tests for irritation and skin sensitization"



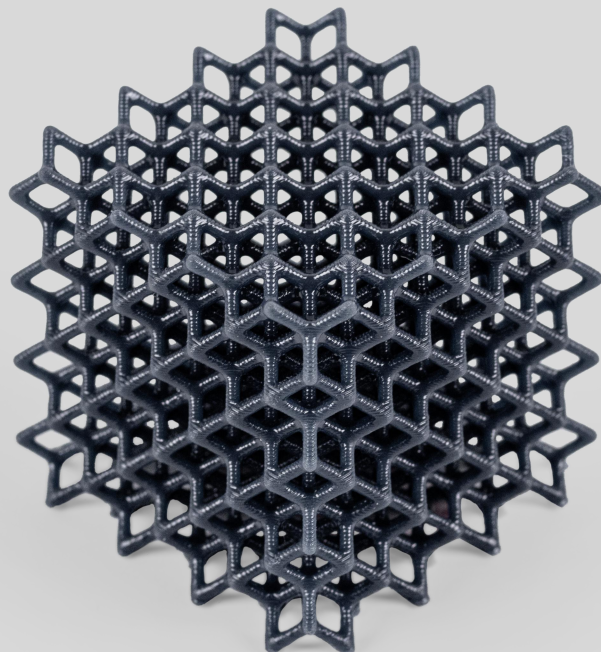
Resilience



Tear resistance



Flexibility



Black

US:

940 Old County Rd, Belmont, CA, 94002, USA

MAT #EM212101-01 Rev1.0

## EM+21 Technical Data Sheet:

| Mechanical Properties  | Metric                 | U.S.                       |
|--|------------------------|----------------------------|
| Ultimate Tensile Strength, ISO 37  | 22.21 MPa              | 3.22 ksi                   |
| Elongation at Break, ISO 37  | 265 %                  | 265 %                      |
| Tear Strength, ASTM D624, Die-C (die cut)  | 23.66 kN/m             | 135.02 lb <sub>f</sub> /in |
| Rebound Resilience, ISO 4662   | 43 %                   | 43 %                       |
| Ross Flexing Fatigue (Notched), ASTM D1052<br>23°C, 90 degree bending, 100 cycles/minute | >125,000               | >125,000                   |
| Thermal Properties, ASTM D648  | Metric                 | U.S.                       |
| Tg (DMA, tan(d)), ASTM D4065   | -23.48 °C              | -10.26 °F                  |
| General Properties   | Metric                 |                            |
| Hardness, Shore A, ASTM D2240  | 70A                    |                            |
| Density (cured resin),ASTM D792  | 1.10 g/cm <sup>3</sup> |                            |
| Density (liquid resin), ASTM D4052   | 0.99 g/cm <sup>3</sup> |                            |
| Viscosity, 40°C, ASTM D2196  | 1280 cps               |                            |

These data are typical values and were determined through testing on printers which are validated for use with Luxcreo's products. Mechanical properties will vary based on machine, part orientation, machine type, machine power, post curing of the printed parts, and cleaning. See product guide for post-processing procedure and best practices. Improper use or failure to adhere to the product guide may result in variations of color and mechanical properties. Luxcreo reserves the right to change material characteristics, and formulation without prior notification.