

bioPoly Stone

Introduction of BioPoly™ Stone Cards

| As durable as plastic, as environmentally friendly as paper.

What Is BioPoly™ Stone?

BioPoly™ Stone is made primarily from calcium carbonate, a naturally occurring mineral. Its composition includes small amounts of additives and a surface coating, giving it the material structure needed for card manufacturing.

We are the first manufacturer to successfully introduce BioPoly™ Stone into the card manufacturing industry, bringing this innovative material into practical card applications.



Safety & Compliance You Can Rely On

BioPoly™ Stone has been evaluated against a range of safety and chemical compliance requirements.

Key Testing & Compliance

FDA · REACH · RoHS compliant · ASTM F963-17 · Phthalates 9P · BPA FREE

These evaluations help you assess material safety, support product compliance reviews, and make more confident choices for your card projects. Supporting documentation is available upon request.

What Makes BioPoly™ Stone Cards Different?

Combining plastic-like durability with a paper-like feel, BioPoly™ Stone cards offer:

Plastic-Like Performance



Water-Resistant

Resists everyday water and moisture.



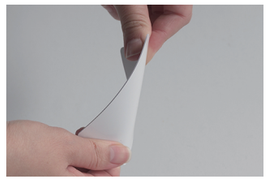
Oil-Resistant

Resists common oils and grease.



Cold-Flexible

Stays flexible and resists cracking in cold conditions.



Tear-Resistant

Offers tear resistance comparable to plastic cards.

Beyond Traditional Paper Cards

- Calcium Carbonate Made: Made primarily from naturally sourced calcium carbonate rather than wood pulp.
- More Eco-Friendly: Generates significantly lower CO_2emissions during production than traditional paper cards.

What Happens After UV Degradation?

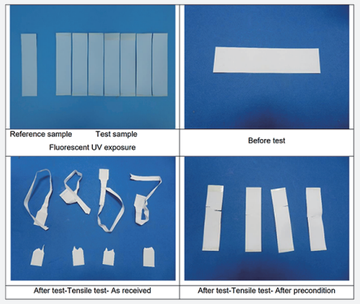
Under specified UV exposure conditions, BioPoly™ Stone gradually loses its plastic-like flexibility and tear resistance, becoming more paper-like and easier to tear. This indicates the degradation of non-calcium carbonate components, leaving calcium carbonate as the primary residue, which is considered environmentally benign.

UV Degradation Test

TEST REPORT

Test Result:

Specimen	Elongation at Break	
#1	As received	589%
#2		588%
#3		501%
#4		576%
#1	After precondition	1.14%
#2		1.04%
#3		1.11%
#4		0.964%



Elongation at Break has reduced by more than 500% after testing, which shows the material is becoming paper-like after UV degradation.

Applications Across Industries

- **Ski Resorts**

Ski passes, season passes, and resort access cards.

- **Hospitality**

Hotel key cards, guest cards, and resort passes.

- **Retail**

Membership cards, loyalty cards, and gift cards.

- **Corporate & Workplace**

Employee ID cards, access cards, and visitor cards.

- **Education**

Student ID cards, campus cards, and library cards.

- **Transportation**

Transit cards, parking cards, and travel passes.

- **Events & Entertainment**

Event cards, venue access cards, and admission passes.



Customization & Specifications



Standard Size

86 × 54 × 0.65 mm
Custom sizes are available upon request. Thickness is fixed.

Crafts

- Foil Stamping
- Metallic Gold & Silver
- Laser or UV Numbering
- 1D Barcodes & QR Codes
- Holograms
- Scratch Panels

RFID/NFC Chip Options

HF RFID & NFC | 13.56 MHz

- NXP NTAG® Series
- NXP ICODE® Series
- NXP MIFARE Classic®
- NXP MIFARE Ultralight®
- NXP MIFARE® DESFire®
- NXP MIFARE Plus®

UHF RFID | 860-960MHz

- NXP UCODE® Series
- Impinj Monza® Series
- Alien Higgs® Series

Make Your Next Card Program More Responsible

Looking for cards that combine practical durability with a more environmentally conscious material choice?
BioPoly™ Stone cards offer a mineral-based alternative with a paper-like feel and plastic-like performance.

Contact Us to Discuss Your Requirements and Request A Quote or Sample

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