

# Seos<sup>®</sup> Bamboo Card

A highly secure physical access control card made with sustainably sourced bamboo.



As the world becomes more environmentally conscious, it's important to choose products that align with your organization's commitment to sustainability. That's why HID is proud to introduce the Seos bamboo card, a secure access control credential made with sustainably sourced bamboo, certified by the Forestry Stewardship Commission (FSC).

The Seos bamboo card not only provides advanced security technology but also demonstrates your organization's commitment to the environment. Bamboo material is durable and provides a visual statement, making it the ideal choice for organizations looking to make a positive impact on the environment without sacrificing security.

Seos is designed to meet the needs of a modern world, offering trusted security and user privacy while also providing flexibility to organizations as they transition to a more connected world. Seos credentials leverage modern cryptography and mutual authentication between the credential and reader to ensure reliable and secure access control. In fact, Seos has received TÜVIT Seal 5 certification for extra peace of mind.

Physical security is crucial, but it's not just about protecting facilities. It's about safeguarding a network of physical and digital systems, from vending machines to online portals. Seos was designed to easily extend beyond physical access control to applications such as secure printing, time and attendance, cashless vending, and network logins.

In addition to providing advanced security technology, Seos Bamboo helps your organization reach its Net Zero targets by minimizing the carbon footprint of your access control system. By choosing Seos Bamboo, you're not only investing in advanced security technology, but also in a sustainable future for your organization and the planet.

Make the switch to Seos Bamboo; say goodbye to PVC and hello to a more sustainable future. Trust in HID's commitment to providing sustainable and secure access control solutions that meet the needs of our customers and protect the environment.



## KEY BENEFITS:

- Made With Sustainable Material
- Contains 73% less plastic than traditional Seos cards
- Natural, Unique Finish
- PVC Free
- Slot-Punched
- High Durability
- Seos Technology
- 8K-Byte memory
- Programmable with Secure Identity Object<sup>®</sup> (SIO<sup>®</sup>)

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## FEATURES

- Made with FSC certified bamboo
- AES-128 cryptographic algorithms for data protection
- TÜViT Certified
- Mutual authentication protocol with generation of diversified session key to protect each card session (using secure messaging)
- High resistance to common attacks (replay attacks and others)



	<b>Seos Bamboo Card</b>
<b>Base Part Number</b>	5746 (8K Memory)
<b>Warranty</b>	3 Years
<b>Operating Frequency</b>	13.56MHz
<b>Protocol</b>	ISO14443A-4
<b>Communication Speed</b>	Up to 848kbps
<b>Memory &amp; Endurance</b>	8 Kbytes (min 500k cycles/10 years)
<b>Security Features</b>	Mutual authentication (compliant to ISO/IEC 24727-3) based on AES 128 Key diversification (based on NIST SP800-108 using AES 128) Secure messaging (compliant to EN14890-1:2009) Session key derivation based on NIST SP 800-56A
<b>SIO Data Object Support</b>	Yes (enabled by default)
<b>HID Format Support</b>	Yes (wrapped in SIO)
	<b>COMPATIBILITY AND PERFORMANCE<sup>1</sup></b>
<b>Signo Readers</b>	Up to 7cm (2.75")
<b>iCLASS SE Readers</b>	Up to 6cm (2.34")
<b>multiCLASS SE Readers</b>	Up to 3cm (1.18")
<b>CP1000D</b>	Read/Write (SIO) / R/W to Custom ADF
<b>iCLASS SE Biometric Reader</b>	Template R/W
<b>ICLASS SE RB25F Biometric Reader</b>	Template R/W
<b>Omnikey Readers<sup>2</sup></b>	Read SIO and R/W to Open Data or Custom ADF
<b>Embedded SE Devices<sup>3</sup></b>	Read SIO and R/W to Open Data or Custom ADF
	<b>MECHANICAL, ENVIRONMENTAL AND COMPLIANCE</b>
<b>Construction<sup>4,5</sup></b>	Bamboo (85%), Thermoplastic Polyurethane (14%), Other (1%)
<b>Bamboo Certification</b>	Made with FSC certified bamboo
<b>Environmental Certification</b>	RoHS, China RoHS, REACH, Halogen Free
<b>Weight</b>	~6g
<b>Product Dimensions</b>	Length: 85.6mm +/- 0.25mm (3.37" +/- 0.01")
<b>Operating Temperature</b>	-35°C to +50°C (-31°F to +122°F)
<b>Storage Temperature</b>	-35°C to +50°C (-31°F to +122°F)
<b>Humidity</b>	Tested for up to 1hr at 95%
<b>Slot Punch</b>	Yes (maximum pull force of 60 N)
<b>Chemical Resistance</b>	24 h salt water (5 %), 24 h sugared water (10 %), 24 h artificial perspiration
<b>Handling Guidance</b>	Bamboo is a natural wood, follow the below handling guidance: <ul style="list-style-type: none"> <li>• Avoid prolonged use and storage in high humidity environments.</li> <li>• Do not submerge in water (If the card does become wet, dry at room temperature.)</li> <li>• Do not bend.</li> <li>• Do not over stress the slot punch.</li> </ul>

<sup>1</sup>HID Global testing occurs in open air. Some environmental conditions, including metallic mounting surface, can significantly degrade read range and performance; plastic or ferrite spacers are recommended to improve performance on metallic mounting surfaces. Spacers for iCLASS SE readers are available at [hidglobal.com](http://hidglobal.com).

<sup>2</sup>Read performance is dependent on antenna design and environment.

<sup>3</sup>See logical access HTOG for Seos compatible Omnikey products.

<sup>4</sup>Bamboo is a natural material, variations in colour and texture will occur. Layers are bonded with Thermoplastic Polyurethane (TPU)

<sup>5</sup>Calculated by Volume



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