



Brunei Darussalam's full polymer series

It was 1996 when Brunei Darussalam issued their first polymer banknotes and now has a full family of circulating polymer banknotes. They have 9 denominations in polymer banknotes ranging from B\$1 to the highest value circulating banknote in the world, the B\$10,000 (worth approximately US\$6,500).

More details page 2



Brunei's polymer banknote series, including the highest value circulating banknote in the world, the Brunei \$10,000 Ringgit (banknotes not to scale)

Brunei Fast Facts



Population	381,371
Capital	Bandar Seri Begawan; 61,000
Area	5,765 square kilometres (2,226 square miles)
Language	Malay, English, Chinese
Religion	Muslim, Buddhist, Christian, indigenous beliefs
Currency	Ringgit
Life Expectancy	76
GDP per Capita	U.S. \$32,167 (2007 est.)
Literacy Percent	92

Some of the reasons for choosing polymer banknotes are their strong and vibrant design elements, featuring up-to-date design and technological developments, and the improved security creates greater barriers to counterfeiting. They are more durable, lasting around four times longer than paper notes and the polymer substrate is non-porous and non-fibrous, making it ideal for use in humid and tropical climate regions.

The B\$1, B\$5 and B\$10 notes were introduced in 1996, followed by the release of the B\$50 and B\$100 polymer notes in July 2004. The Brunei Currency and Monetary Board (BCMB) stated "the issuing of the fifty and one hundred dollar polymer notes enhances security in terms of risk of counterfeiting and offers a better quality service for the public".

In December 2006, the BCMB issued denominations B\$500 and B\$10,000. The BCMB revealed the new polymer notes were equipped with a range of security features to minimise the risk of counterfeiting and that the substrate provided for a more durable and longer lasting note. The BCMB reduced the size of the \$10,000 in line with the current polymer denominations. In June 2007 the BCMB issued new B\$1,000 polymer banknotes for circulation.

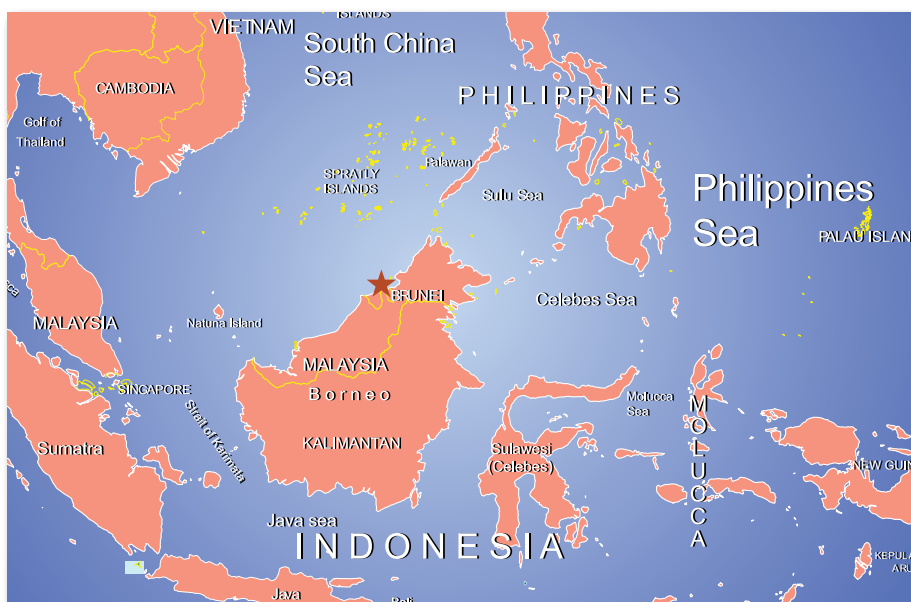
To mark the occasion of the 40th Anniversary of the Currency Interchangeability Agreement between Brunei Darussalam and Singapore there was a joint launch of the new \$20 polymer notes of each country. Both countries also issued commemorative \$20 notes which were sold in a set comprising a \$20

polymer note of each country. The Currency Interchangeability Agreement allows the Brunei Currency and Singapore Currency to be exchanged at par, without charge, in each other's country. Both currencies are freely convertible in the two countries.

The main theme of the banknote series has been standardized. On the obverse of each note is a portrait of His Majesty Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah, the Sultan and Yang Di-Pertuan of Brunei Darussalam, excluding the B\$500 which has a portrait of Al-Marhum Sultan Haji Omar 'Ali Saifuddien Sa'adul Khairi Waddien, the 28th ruler of Brunei Darussalam. Each denomination also incorporates a floral image particular to the country.

On the reverse is a rainforest theme for the B\$1, B\$5, B\$10, B\$50 and B\$100, each note having a different image. For the B\$20, B\$500, B\$1,000 and B\$10,000, each note features a different significant building in Brunei.

There are a range of advanced security features incorporated into the polymer banknotes varying between denominations. These include WinTHRU® clear see-through window, WinDOE® holographic image which is visible when looking through the small transparent window to a point light source such as a downlight or candle, ICE®, SHAD H₂O Switch® shadow image which can be seen when held up to the light, G-switch® colour which will change from one colour to another at varying angles and GOLDswitch®.



G-switch® - a proven and easily recognisable Guardian® security feature

Issuers are committed to maintaining confidence in the currency in circulation. People who use banknotes in “everyday” transactions for the purchase of goods and services need to be confident that the banknotes they are using are authentic and will provide the expected value.

Hence the issuer must ensure the banknotes it issues have an appropriate range of security features that are:

- Easy to recognise
- Functional
- Durable
- Cost effective.

G-switch® is a dynamic optical feature in polymer banknotes that changes

colour when the note is tilted. The bright and transient colour switching effect is produced in the robust substrate layers of the polymer banknote. When viewed at different angles, the G-switch® feature alternates between two complementary colours, creating an optically variable effect.

The G-switch® feature in polymer banknotes is an effective security feature combining the essential attributes:

Easy to Recognise: The G-switch® can be designed as a large feature for maximum effectiveness and it may be fully integrated as a key element of the overall design of the banknote. As a clearly visible feature with a strong colour shift component, G-switch® attracts the attention of the banknote user.

Functional: A significant colour change is observed and the feature is validated when the banknote is tilted. There is no

need to use any other equipment or for the banknote user to have any special skills to check the G-switch® with confidence.

Durable: Because the G-switch® is integrated into the banknote substrate it has a high level of durability. It retains its structure and functionality on banknotes that are exposed to high levels of “wear and tear” in circulation and can tolerate the harsh usage conditions usually associated with low denomination banknotes.

Cost Effective: The G-switch® is produced during the manufacture of the Guardian® polymer substrate and is very cost effective.

The G-switch® feature has been proven to perform well in a range of challenging environments and circulating conditions such as in Papua New Guinea, Mexico and Nigeria.

G-switch® has been used successfully in a range of other banknotes as can be seen below.



Brunei 500 Ringgit polymer banknote



Mexico 50 Pesos polymer banknote



Papua New Guinea 100 Kina polymer banknote – at this angle, the G-switch® is green at the top and purple at the bottom.



Hong Kong \$10 polymer banknote

G-switch® - a Case Study

The G-switch® has been successfully integrated into the design of the Nigeria 20 Naira polymer banknote.

The G-switch® feature is easily recognised in the lower part of the complex window on the banknote and it shows a distinctive colour shift from green to gold when the banknote is tilted.

The 20 Naira is a widely circulated, lower denomination banknote in Nigeria and is used for both small value transactions, for example in markets and for transportation fares and also as a change banknote. These banknotes have a high velocity of circulation, and are passed many times from “hand to hand”. They are used a great deal in the rural and market environments within the economy, and are often subjected to harsh handling and usage conditions. The banknotes are subjected to a significant amount of “wear and tear”.

The 20 Naira polymer banknote has provided a practical test for the performance of the G-switch®, and the feature has performed very well. Even on banknotes that have been subjected to very harsh handling and usage, the G-switch® has maintained its structure and continues to provide a high level of functionality.

New issue 20 Naira banknote



Over time rough circulating conditions show wear as seen in the portrait and overall colour of the 20 Naira banknotes below. The G-switch® still remains a high level, durable, security feature by staying intact and maintaining its colour.



International events

Conference	Location	Date	Website
2008			
Currency Conference 2008	Prague, Czech Republic	October 12-16	www.currencyconference.com
7th Asian High Security Printers Conference	Bangkok, Thailand	November 11-13	www.cross-conferences.com
2009			
ICCOS 2009	Chicago, IL, USA	22-25 March	www.iccos.net
6th Pan-European High Security Printing Conference	Warsaw, Poland	1-2 April	www.cross-conferences.com



For more industry news, polymer facts and currency hot topics, look out for the next issue of IPCA Bulletin.

Enquiries www.ipca.au.com

Back issues of IPCA Bulletin can be found on the IPCA website: www.ipca.au.com

© Copyright 2008 International Polymer Currency Association. No part of this bulletin may be reproduced without prior consent from IPCA.