



Polymer adopted to complement Vietnam currency strategy

On 17 December 2003, the State Bank of Vietnam issued new VND50,000 and VND500,000 polymer banknotes. At a press conference held by the State Bank, Governor Le Duc Thuy said that Vietnam decided on the change “to make the money structure more reasonable and to better fight against counterfeits”. He also said the new polymer notes were more durable.

The introduction of polymer banknotes in Vietnam is a significant contribution to the reformation of the banking and monetary system. Governor Le Duc Thuy said the reformation is “aimed at providing a range of denominations to meet the demands in the economy.” The polymer VND50,000 replaces an existing paper note. It is a widely circulating note dispensed by ATM's from the first day of issue. The VND500,000 is a new denomination. Apart from the polymer notes, SBV also issued coins in three denominations.

Following several years evaluating polymer bank notes the National Banknote Printing Plant conducted a trial printing of a VND50 commemorative note in 2001.

The results were very good and clearly showed the Vietnamese that polymer banknotes were worthy of further consideration. The Bank then conducted a “due diligence” program by independently surveying a number of major central banks in countries where large volumes of polymer banknotes are in circulation. The Governor also commented that while some of the notes were printed in Australia, this was done to provide Vietnamese printers with some training, and that all other notes are being printed in Vietnam.

Guardian® polymer banknotes have now been issued in 22 countries.



Technology update

– Optimization of high volume cash processing operations

In this edition, IPCA speaks with Technology and Productivity Manager of Prosegur, German Arribas De La Casa, about the company's experience in banknote processing operation in Brazil.

The first examination is carried out using audiometrics, which measures the dimensions of the banknote by passing the banknote through the shaft of the sensor in the processing machine (G&D BPS 200). The sound produced during the process enables the machine to verify the quality of the banknote. The second examination verifies mechanical defects such as tears, pen marks and cuts of the banknotes.

IPCA: In post-examination, what can you conclude about the impact of polymer notes on processing operations as a whole?

Prosegur: Currently, 35% of Prosegur' daily processed banknotes are 10 Reais (paper and polymer), 10% of which are polymer banknotes. Despite the high volume in circulation, polymer banknotes have an extremely low rate of rejected notes. It is also believed that the intrinsic characteristics of polymer banknotes - durability and cleanliness, are the main factors that contribute to efficient machine processing and low rejection rates.

Take the R\$1 paper note, for example. It has a rejection rate of around 40%, whilst the R\$10 polymer note has a rate near zero! These are significant factors predominantly from an operational and cost-effectiveness viewpoint, because they contribute to the overall profitability of Prosegur.

IPCA: Since the release of 10 Reais polymer notes into circulation in 2000, what changes has Prosegur undertaken to manage handling and processing paper and polymer banknotes simultaneously?

Prosegur: It was imperative that some slight modifications be introduced to our processing methods and equipment to adapt to the differences of both banknote substrates, primarily to reduce the amount of time consumed on sorting, counting and separating banknotes. The objective is to continue to optimise the banknote processing function and reduce costs.

IPCA: Can you specify the form of modifications, particularly on the machines and equipment?

Prosegur: In the three years of experience with paper and polymer banknotes, the only changes Prosegur have made so far are in the adjustment of the traction system, and detecting and reading components to accommodate variations in thickness and size.

This way, paper and polymer notes are processed together without any additional labour, therefore increasing efficiency and productivity. This is a positive point, as far as Prosegur is concerned. This also means we continue to provide the central bank with quality service.



IPCA: In the area of sorting and separating damaged banknotes, what does Prosegur do to ensure this process is achieved with the highest quality standard specified by Brazil's central bank, Banco Central do Brazil?

Prosegur: Prosegur takes this responsibility seriously. Banknotes taken out of circulation undergo two types of examination in order to satisfy note verification criteria set by the central bank.

IPCA: Could you describe Prosegur's experience in counterfeit detection, particularly in the differentiation between paper counterfeits and polymer counterfeits during processing operations?

Prosegur: At Prosegur, we use Glory GFR 120 and G&D BPS 200 to process both paper and polymer notes simultaneously. We have not encountered any significant issues because once these machines and equipment are adjusted accordingly, there is no difference between processing paper and polymer notes and detecting counterfeits.



Company Profile

The Prosegur Group is a leading worldwide specialist in the commercialisation of security transport and custody of cash, surveillance and alarm systems. The Spanish multinational company operates extensively throughout Spain, Portugal, Brazil, Argentina, Peru, Paraguay and France.

www.prosegur.com.br

First Polymer notes in Africa

Bank of Zambia (BoZ) issued the 500 Kwacha and 1000 Kwacha polymer notes in September 2003, marking the first Guardian® polymer notes in the African continent. Both denominations replace the current paper banknotes.

The simultaneous introduction of two polymer notes is part of the Bank's effort in restructuring its currency denomination

strategy. The 500 and 1000 Kwacha are the most commonly used banknotes as they are most popular in day-to-day transactions. BoZ Head of Public Relations, Kabinga Pande, said "The polymer notes will bring significant benefits to Zambia because of the harsh circulation conditions and the high usage and replacement of these denominations".

BoZ expects to save K17billion in re-order costs over five years as well as lower distribution, processing and labour costs.

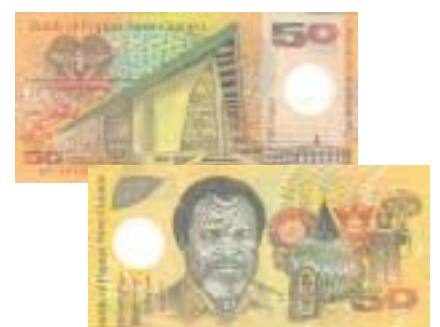


Papua New Guinea issues fourth Polymer denomination

Bank of Papua New Guinea (BPNG) issued a new 20 Kina polymer note in November 2003 to mark the 30th Anniversary of the Bank.

Whilst the main design elements of the paper version have been preserved, the 20 Kina polymer note also includes advanced anti-counterfeiting security features. The complex clear window, a primary Guardian® security feature, is furnished with a vignette of the logo

of the Bank and emboss of the numeral '20', and a shadow image of the BPNG logo is visible when the note is raised to the light. Additionally, a special gold overprint is featured on the note. Papua New Guinea also has the 2 Kina, 10 Kina and 50 Kina on polymer.



Polymer.

Your questions answered

Q. What is the difference in storage methods between paper and polymer notes?

A. The differences are minor. For instance it is advisable to store polymer notes flat in bulk conditions. This helps the notes to maintain their form, which in the long run, ensures ease of handling and enhances the durability and quality of polymer notes. As polymer notes are not susceptible to moisture and fungal growth, due to their non-porous nature, they can be stored in various environmental conditions. The other difference is that paper notes often become soiled and go limp over a

period of time in circulation, while polymer notes remain clean and crisp.

Q. Do folding and scratch marks have any effects on the efficiency of automatic processing operation?

A. Polymer notes have proven to be far more efficient in machines such as automatic teller machines (ATM's), note validators, note counters and vending machines. Scratch marks or abrasions do not cause problems in such machines. Folded notes return to a flat state when stored in that condition for a short time before processing.

Q. How will polymer substrate react under abnormal temperatures and circumstances such as heat from heaters and cookers and in very cold or freezing conditions ?

A. Polymer notes are very robust and there is no effect on them at temperatures of up to 120 degrees Celsius. Above this temperature they begin to shrink slightly, and will eventually melt at significantly higher temperatures. (While paper notes will burn). Polymer notes are not affected by low temperatures or frozen environments.

International events

Conference	Location	Date	Website
2004			
Pan European Security Conference	Berlin, Germany	March 31 - April 1	info@crossconferences.com
Card Tech Secure Tech (CTST)	Washington DC,	April 26 - 29	www.ctst.com
Currency Conference	Rome, Italy	May 2 - 5	ww.currencyconference.com
World Economic Forum	Jordan	May 15 - 17	www.weforum.org
Africa Economic Forum	Mozambique	June 2 - 4	www.weforum.org
R.F.I.D. World Australia	Sydney, Australia	August 24 - 25	www.cards-worldwide.com
3rd Asian High Security Conference	Jakarta, Indonesia	September	www.cross-conferences.com
Intergraf	Granada, Spain	October 6 - 8	www.intergraf.org



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