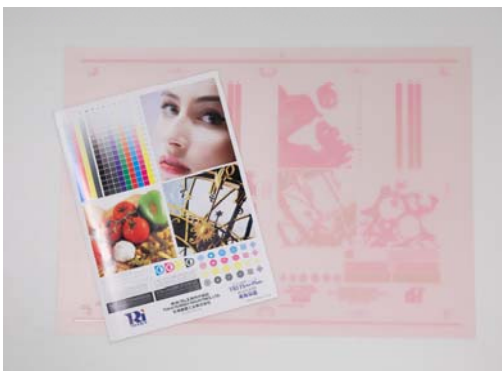


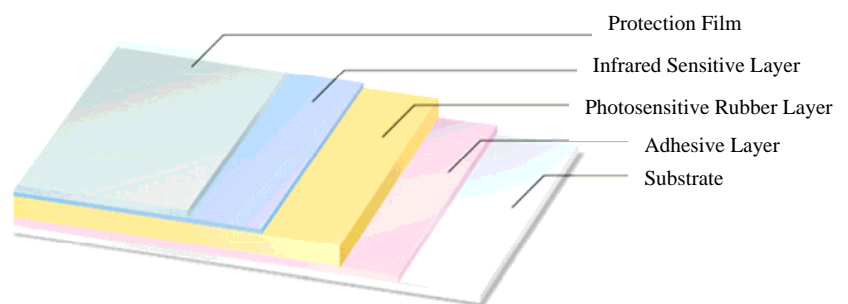
Tokai Rubber Fully Enters Flexo Printing Business

Launching High-Resolution, Eco-Friendly Water-Developable Plate, “AquaGreen”

Tokai Rubber Industries, LTD. (Head Office: Komaki City, Aichi Prefecture, President: Yoshiaki Nishimura) announces that it has successfully developed a new printing plate for typographic (flexographic) printing using flexible photosensitive rubber while ensuring high resolution images. The company will make a full-scale entry into the flexo printing market by fully launching this product in Japan under the brand name of “AquaGreen.” TRI has invented an original method to reduce environmental loads with the use of water instead of solvents during the plate manufacturing process.



Photosensitive water-developable flexo plate
“AquaGreen” and its printout



Structure of “AquaGreen”

Flexographic printing is used for soft packaging such as food packages. The most common method to manufacture flexo printing plates involves organic solvents (solvent-developable plates) despite their high environmental loads. Therefore, there is a growing demand for a solvent-free method (water developable plates) for environmental aspects.

In response to such needs, we have successfully created a photosensitive rubber material, using our high-polymer compounding/processing technology that has been our strength since the company’s foundation.

This material makes possible developing clear, high-quality images without using solvents and allows us to commercialize water-developable plates that ensure high-resolution images.

We also aim to enter the environmental solution business including the plate manufacturing system in addition to promoting our product brand of flexo printing plates, “AquaGreen” domestically in full scale.

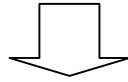
Through these efforts, we hope to meet our sales target of 4 billion yen for fiscal 2015 in the flexo printing business.

<Origin of the Brand Name, “AquaGreen”>

Aqua: Water Developable

+

Green: Eco-friendly, highly aware of environmental problems Green Printing



AquaGreen

Environmentally-friendly water developable plates for flexo printing

<Characteristics of “AquaGreen”>

① Solvent-free, shorter plate-manufacturing time

Plates can be manufactured using 40-50°C of tap water with about 1% of surfactant added to it. Compared with the solvent-developable type, the AquaGreen’s process time from developing to finishing is reduced to one fourth, about 40 minutes. Other benefits include: a better work environment such as the elimination of odor, and no need to dispose of effluent. Even conventional plate-making machines can use this “AquaGreen” by changing their developing brushes.



Finishing the plate with the brush while applying water



Development completed after the finishing process

② Sharp images

While the surface of a conventional flexo plate consists of a myriad of mound-shaped, round-top halftone dots, the “AquaGreen” has flat-top dots. This structure is the key to stably reproducing high-resolution images that are faithful to the original designs.

AquaGreen High resolution images reproducible



Original Image



Flexo Plate



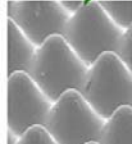
Conventional Printing Quality

Conventional Flexo Plate

Halftone dots are round-shaped on the top.

Round-Top-Dot

→ Inconsistent Image Quality



Magnified photo of The round-top dots



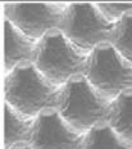
Aqua Green

AquaGreen

Halftone dots are flat-shaped on the top.

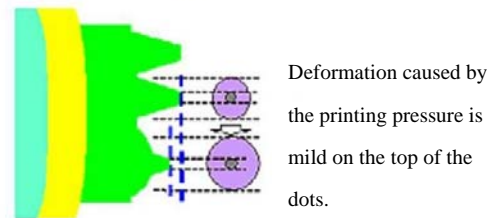
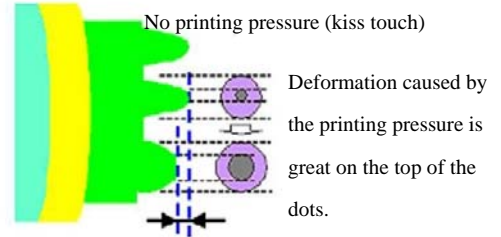
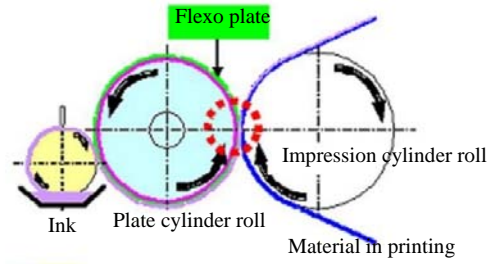
Flat-Top-Dot

→ Consistent Image Quality



Magnified photo of the flat-top dots

Printing process



【Contact Information】

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