COMMERCIAL CARPET DIGEST

News for R&D and Sales Executives, Architects, Specifiers, Designers & Facilities Managers in Floorcovering

In this issue NEOCON 2007, the 'greening' of the carpet industry, PTT/3GT.

NEOCON

NEOCON 2007 was another dynamic show, with attendance reported to be up 15+%. This bodes well for the next 12 months in the commercial carpet market. Attendees came with projects in mind and designers and specifiers had an optimistic outlook.

Compared with new products from last year, the new introductions were rather subdued and the exhibitors tended to go for more conservative palettes. Three-dimensional patterns were a popular trend and they looked stunning on the floor or on the wall. One has to be careful with pattern selection with these three-dimension patterns, as going overboard could lead to poor performance. However, in most cases the manufacturers were using the fine gauge equipment, which also allows various pile heights, to a significant design advantage. Once again our soft flooring designers showed why they are the world leaders and not only are they being followed globally, they are still ahead of the hard floor surfaces.

Showrooms I liked: *(in no particular order)*

J & J—displayed nice patterns, with a continued commitment to expanding their tile offerings.

Milliken—a freshly designed booth with more emphasis on not accentuating the printed pattern effect. In fact some of their offerings looked as if they were yarn dyed instead of printed.

Mohawk—Jackie Dettmar took me through this show-room and demonstrated their Synergy concept. We went from Karastan with their Wilton and Karalok products, to Mohawk's offerings of tile and broadloom, to Bigelow and finally onto Durkan. Many of their yarn sku's were used very effectively, yet differently, in two or more of the collections.

Interface—finally back in the Merchandise Mart (instead of Well St.) they showed a very effective use of tiles as a design tool. They also talked about their recycled nylon 6,6 program (more on that later in this issue).

Tandus—very active show-room, with the new President

Information & analysis of commercial floorcovering trends.

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Editorial comments are welcomed.

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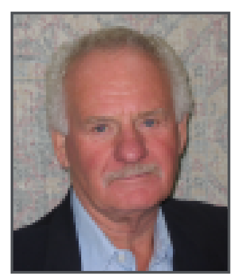

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attending. There appears to be more synergy between Monterey, Crossley and C & A, in how their products are offered; this should help in bringing the total story together.

Shaw—also a very busy showroom and they won another gold award. The quality of their design continues to improve every year and it shows in their new offerings of both tile and broadloom.

Blue Ridge—showed a number of extremely attractive three-dimensional patterns.

The 'Greening' of the Carpet Industry

There is no doubt that environmental concerns and the "green" concept is now the number one promotable tool within our industry. Almost daily we are getting "*we are the leaders*"…"*we are the best*"… "*we're more environmentally conscious than you are*!" -------and on and on!

The carpet industry has a lot to be proud of in their achievements but also there is a lot of half truths that are promoted as fact and as more and more of the latter occurs we are going to get a very nasty consequence down the road. Let me give you my opinions on what is "green" in our industry.

Tandus brings back old carpet, and grinds it up, then incorporates it into new carpet. In doing so they prevent carpet from going into landfill and also reduce the requirements of purchasing more chemicals. They have been doing this with great success for years and have every right to boast about their "green" approach. More importantly this is a very economical approach.

Nylene (small nylon extrusion company in Canada—formerly part of BASF Canada) depolymerises waste polymer into caprolactam to make new virgin nylon chip and bcf yarns. They have been doing this for 40 years and are the NAFTA leaders. The economics have not always been on their side, but they most certainly are now. This is a company, which has shown a strong commitment to green over many years.

Interface the perceived environmental leader in our industry, touts an absolute commitment to sustainability with the goal that by 2020 they will not require any new petroleum products in their system. This is an admiral vision and they have 12 more years to achieve it. They have come a long way towards reducing waste, using solar energy and selecting their raw materials.

Shaw has announced the reopening of the **Evergreen** recycling facility, bought from **Honeywell**. The intent is that used carpet is separated into ingredients; similar to Nylene, the nylon 6 portion is depolymerised, converted back to caprolactam and then into virgin nylon yarn. The major difference between this process and the Nylene is that the latter uses post-industrial nylon while Shaw will use post-consumer nylon. The reason that the Evergreen facility was closed is that this process was (and still is) expensive; with the cost of nylon having doubled in the past four years reopening this plant becomes economically viable.

This leads us to another point about the “green” surge. Although designers and specifiers are clamoring for green products, make no mistake about it, they will not pay more for it. No matter how many focus groups tell you that they are willing to pay 5 to 10% more for green products, when the rubber meets the road 99 times out of 100, the budget wins and so does the cheaper product! Consequently, when ‘green’ increases costs—the mills should remember that economics is still a key factor.

Just before NEOCON, **Interface** and **Universal Fibers** announced the first viable recycled Nylon 6,6 program. (Nylon 6,6 is much more difficult to recycle than Nylon 6). The breakthrough—there is an Italian machine that has the ability to break carpet tile down into its various components, with a much higher degree of purity than has previously been obtained. So this allows Universal (the yarn extruder) to process the fiber component back into the polymer, and then into fresh yarn. Believe me this is quite an exciting new opportunity. However, when I talked with a senior executive at Interface he admitted to me that for the time being and the foreseeable future it is likely that this recycled Nylon 6,6 component will be available in limited colors—black and possibly as much as three others. It is still a step in the right direction, but don’t let any over-enthusiastic sales person lead you into believing there is any more than 6 –10% post consumer component in their product.

Mohawk and **Beaulieu** take soda bottles, crush them, then convert the resulting flake into polyester staple. This is true post-consumer recycling. Unfortunately PET staple (and bcf for that matter) makes a lousy commercial carpet so this recycling story is confined to the residential market.

PTT/3GT has been used within the residential sector of our business—with very good results. Its dual properties of excellent stain-resistance (much better than any nylon) and having equal resiliency and wear properties to nylon, make it a very attractive proposition for the carpet market. Restricted capacity and difficulty in getting a Radiant Panel Class 1 Rating have hindered this product entering the commercial market. However, the technical gurus at **Shell Chemical** are looking at a number of additives and the initial results are very encouraging. If any of these additives continue to show success, the industry could see some major mills introducing products.

For full disclosure one of the manufacturers of PTT is a client of TLR Consulting.—**Editor**

The performance of PTT in carpet is not the only aspect that should excite the commercial sector. Some preliminary reports indicate that it requires 50% less energy to make 1 kg of PTT versus 1 kg of nylon. Also the emissions are significantly lower for PTT (versus nylon)—particularly those equivalent CO_2 emissions. In addition, the ability to recycle PTT back into fiber has been proven. In carpet form, the drying of PTT versus nylon is significantly faster as PTT retains 40 times less water than nylon. Thus, there is significant energy savings in favor of PTT.

Finally we have seen a lot of press about **bio PTT**. What is bio PTT? A joint venture was formed between **Dupont** and **Tate/Lyle** (the sugar company) to make *Propane Diol* (**PDO**) by subjecting corn to bacteria similar to e-coli. This breaks the corn down and the result is PDO. The PDO is then extracted in a very pure state and is used (among other things) to manufacture PTT. *PDO comprises of 40% of the PTT molecule. The other 60% is purified teraphthalic acid* (PTA), *which is generated via the regular petrochemical process.* So, Dupont has the ability to make PTT using one component which is not petrochemical based. At the very least this is a step in the right direction.

A foreign resource told me that Dupont ships their bio PDO to Germany; it is converted to PTT then returned to the USA. He also mentioned that they had the intention of doing the same thing through their plant in China. Now I may not have a masters in logistics but it seems to me that shipping a product overseas, converting it, and shipping it back to the USA would take a lot of additional energy, which could possibly negate the advantage of being partially corn sourced!

The point I am making here is that we tend to get focused on buzz words like "*bio*", "*recycle*" and "*sustainability*" and in doing so ignore the bigger picture. To paraphrase environmentalist Paul Hawkins, "*buying organic raspberries is fine, but if they have been flown in on a 747 from Chile we really are missing the point of earth-friendly*!"

PTT and 3GT both have a great future in the commercial carpet business. You can expect to see some commercial styles introduced in 2008.

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