

December 2016

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# MetalForming

Sheetmetal forming and fabricating technology for leading-edge manufacturers

## Press-Brake Technology to Bust the Bottlenecks

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## Dunnage Bags Provide Corrosion Protection

Cortec, St. Paul, MN, has introduced its Nano VpCI corrosion-inhibiting technology, available in the form of a cushioned dunnage bag. The bags ensure that metal-part shipments arrive at their destinations corrosion- and nick-free. In addition, Cor-Pak dunnage bags reportedly have an excellent environmental footprint, with active VpCI content that is more than 95-percent recycled.



Cor-Pak dunnage bags emit VpCIs through a breathable Tyvek pouch, packed with cushioning material such as neutral Kraft paper or polyurethane foam impregnated with VpCIs. These corrosion inhibitors vaporize and condense on metal surfaces to form a thin protective layer that does not alter product appearance and does not need to be removed. It will not harm the physical properties of even the most sensitive electrical components. And, the metal parts protected by dunnage bags can be painted, welded and soldered without removing the VpCI.

Cor-Pak VpCI bags are nontoxic and provide superior multi-metal corrosion protection without using nitrites, phosphates or silicates. They prove effective against aggressive environments including humidity, SO<sub>2</sub>, H<sub>2</sub>S and galvanic corrosion from dissimilar metals. They come as 6- by 12-in. pouches packaged 30 per carton, with custom sizes available upon request.

**Cortec Corp.:** [www.cortecpackaging.com](http://www.cortecpackaging.com)

## Coating Takes Corrosion Protection to a New Level

PPG, Pittsburgh, PA, has introduced its DragonHide ZRE duplex coating, engineered with a self-healing zinc-rich primer between the basemetal substrate and electrocoat finish. The process promises to optimize the corrosion resistance of high-end automotive underbody parts and subframes.

Says product manager John Zbiegien: "When the barrier coat on an underbody assembly treated with the DragonHide ZRE system gets chipped by road debris, the sacrificial zinc-oxide layer corrodes, causing the basecoat to heal and protect itself. That enables highly exposed auto parts to last much longer in service than they do today."

The zinc-rich coating has been performance-tested by major automotive manufacturers

for the past three years and achieved exceptional results. Potential applications include control arms, tie rods, linkages, engine cradles and fasteners. The system also can be used for general finishing applications and by heavy-duty and military-equipment manufacturers for producing parts that must survive highly corrosive environments.

The DragonHide ZRE coating can be applied by dip-drain, dip-spin and spray methods.

**PPG:** [www.ppgindustrialcoatings.com](http://www.ppgindustrialcoatings.com)

## The Latest in Overlay Technology

SSAB, manufacturer of Hardox wear plate, introduces Duroxite, an overlay comprised of abrasion-resistant materials deposited on top of mild steel or Hardox wear plate. The result is an extremely wear-resistant compound material. Use it for sliding-wear environments where small and hard materials are processed, such as coal with high quartz content. It also plays an important role as a wear-resistant material in high-temperature environments.

Says Gregoire Parenty, head of SSAB Services: "Duroxite is a natural choice for many industries, such as mining, cement production and handling, coal-fired power generation and similar applications."

Duroxite comes with guarantees reportedly unique for the overlay market, including an overlay thickness guaranteed within  $\pm 10$  percent—throughout the plate and from plate to plate. Further, consistent wear properties are guaranteed throughout the plate down to 75 percent of the overlay thickness, as opposed to just the surface of the overlay. The remaining 25 percent of overlay is the transition layer necessary to maintain good bonding to the base plate. An optimal carbide composition ensures homogenous bonding between the basemetal and overlay, adding to the overlay's high wear resistance and long service life.

**SSAB:** [www.duroxite.com](http://www.duroxite.com)