



A Passion for Innovation

Intertape Polymer Group and SONACA Wichita

Once in a while an innovation comes along that is so brilliant, so practical, and solves a problem so effectively, that it becomes the standard. Intertape Polymer Group™ (IPG) BT Series Shot Peening Tape is that kind of innovation.

Intertape is a leading manufacturer of a comprehensive range of tape and film-based products including blast tapes. SONACA Wichita, located in Wichita, Kansas, is one of the many customers realizing the advantages of using Intertape BT100 & BT-146 die cuts in their operation. SONACA is a worldwide leader in the development, manufacturing, assembly and testing of aerospace structures and associated subsystems. The Wichita location manufactures integral stringer and conventional wing skins for many of the major aircraft manufacturers.

A Customer's Challenge

SONACA was using multiple layers of duct tape to mask off sensitive areas of the wings during the shot peening operation to protect those areas from incurring any damage from the blasting process. Once the shot peening process was completed, the duct tape was removed. The process of masking off multiple layers of duct tape and the subsequent removal of the duct tape was a very time-consuming process. Additionally, the duct tape would become brittle and shred into tiny pieces, making it very difficult to remove cleanly after the shot peening process. In most cases, the adhesive residue left behind from the duct tape had to be cleaned from the wing surface, creating an additional labor intensive and time-intensive step in the process.

A Solution to the Challenge

Intertape™ BT100 is a 43-mil thick durable rubber-based product coated with advanced water-based acrylic pressure-sensitive adhesive. Applying the 43-mil thick BT100 product allows for maximum blast / peening time at up to 100 psi. Special rubber allows BT100 to conform tightly around curves and uneven surfaces. The high-tack qualities of the adhesive bonds quickly to clean surfaces to produce a seal that prevents media / peening intrusion.

One of the key attributes that impressed SONACA was the clean removal of BT100 following the shot peening process. It was easily peeled away in one piece without the use of messy solvents or manual "picking" required to remove the product or adhesive residue left behind.

A Demonstrated Cost Savings

SONACA was so impressed after the initial trial and product demonstration that they immediately placed an

order for BT100. They embarked upon an internal cost analysis to verify their intuitive feeling that BT100 would provide both cost and process savings. Although BT100 is more costly from a material standpoint versus duct tape, the productivity enhancements and labor savings benefits far outweighed the material cost. The primary indicator was daily throughput, measured in units per day. As a result of the time savings they achieved by applying BT100, SONACA lowered the cost per unit and increased their production output with no capital expenditure or increase in labor.

Advancing the Solution

In the pursuit of continuous improvement, SONACA discovered that many of the areas on the wing requiring protection from the shot peening process were odd shapes and sizes so to save time in the masking process, they began hand-cutting the BT100 into specific die cut configurations. They soon learned that Intertape's BT146 is identical to the BT100 tested by SONACA except for one feature – BT146 has a polyester liner where the BT100 uses a paper liner. The polyester liner used on BT146 is better suited for die cutting



Intertape Polymer Group's masking products

because the die cut material can be removed from the liner and applied in less time. As a result, SONACA achieved additional productivity enhancements.

"The application of Intertape BT100 tape, as well as our development of numerically controlled precut mask kits using BT146, have reduced our masking labor requirements by as much as 70%. The use of these Intertape BT Series Shot Peening tapes has resulted in improvement in the quality of our products and an increase in customer satisfaction as the result of improved installation "fit." The product compliments our process perfectly," states Scott Bong, Director of Operations for SONACA Wichita.

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Clever design, innovative thinking and attention to detail combine to provide world class solutions. Intertape Polymer Group and SONACA Wichita...two manufacturers focused on innovation and technology come together with a great story demonstrating how working together and sharing excellence is a winning strategy.

For more information on Intertape Polymer Group shot peening masking products, contact Cindy Stoner, Market Manager, at (901)486-3323. To learn more about SONACA Wichita, go to www.sonacawichita.com. ●