



## Keeping the Ball in the Air



*Celso Santos and Christian Albanese of Rio 21 Design have done it again. Once more the Brazilian designers have created an award-winning product directly inspired by the beaches of their beautiful city. This time it's an innovative design for a Frescobol racquet. In the formation they used Cobalt™ CAD and 3D modeling software for every aspect of the design process. Santos tells us:*

***"I use Cobalt to do everything, from product development to the final drawings for the tooling. I also use it for packaging and point-of-sales displays."***

*Frescobol*, or beach racquetball, was developed in the Copacabana area of Rio de Janeiro in the middle of the last century. A uniquely cooperative game, *Frescobol* is played with a partner not an opponent, with the object being to keep the ball in the air as long as possible.

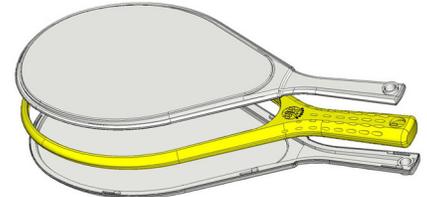
Traditionally, wood or fiberglass racquets were used. But Rio 21's innovative plastic racquet uses a head and edges injected with soft rubber. The result is stylish, lightweight, tough and can return the ball with a sting. Not only can the racquet withstand the impact of energetic play, but unlike wood, is not subject to warping or weight change from the beach's inherent damp environment. Traditional wooden racquets can absorb up to 20% of their weight in water over time. Textures in the grip allow perfect handling even when wet.

Rio 21 Design's model uses an internal grid structure that includes a series of pins and holes that are part of a body injection moulded in polypropylene. As the two mirrored parts are snapped together, the pins and holes form a solid paddle that is then finished with injected thermoplastic rubber. Using soft thermoplastic rubber for the handle and rim protect the racquet and the players against undesired impact, making the ball easier to control and the game safer and more fun to play. Injection molding fabrication insures high quality production of the finished product.

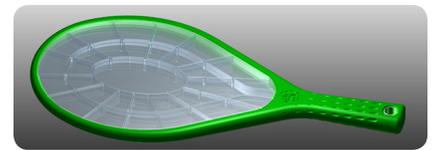
Santos particularly likes Cobalt's ease of use, not only in its user interface and but also in its Organic Workflow which allows him to create a 3D model with history then make changes as needed all the way through production. He says:

***"You take any other software in this 3D world, and I've tried the majority of them, and I have never found something better than the Ashlar way to do things."***

Congratulations to Rio 21 Design whose efforts won them a bronze IDEA award from IDEA Brazil, a division of IDSA.



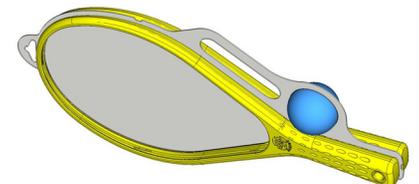
An exploded 3D model, one of many views done by Santos and Albanese in Cobalt of the beach racquet.



Cobalt's photorealistic rendering shows the internal grid structure of the racquet.



The racquet's injection-molded thermoplastic includes a textured handle and snap together structure.



The product's packing designed in Cobalt above, and ready for market below.



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