Combining style, durability and sustainability for high-performance robot vacuum cleaners

DUPONT™
Mobility & Materials

CHALLENGES

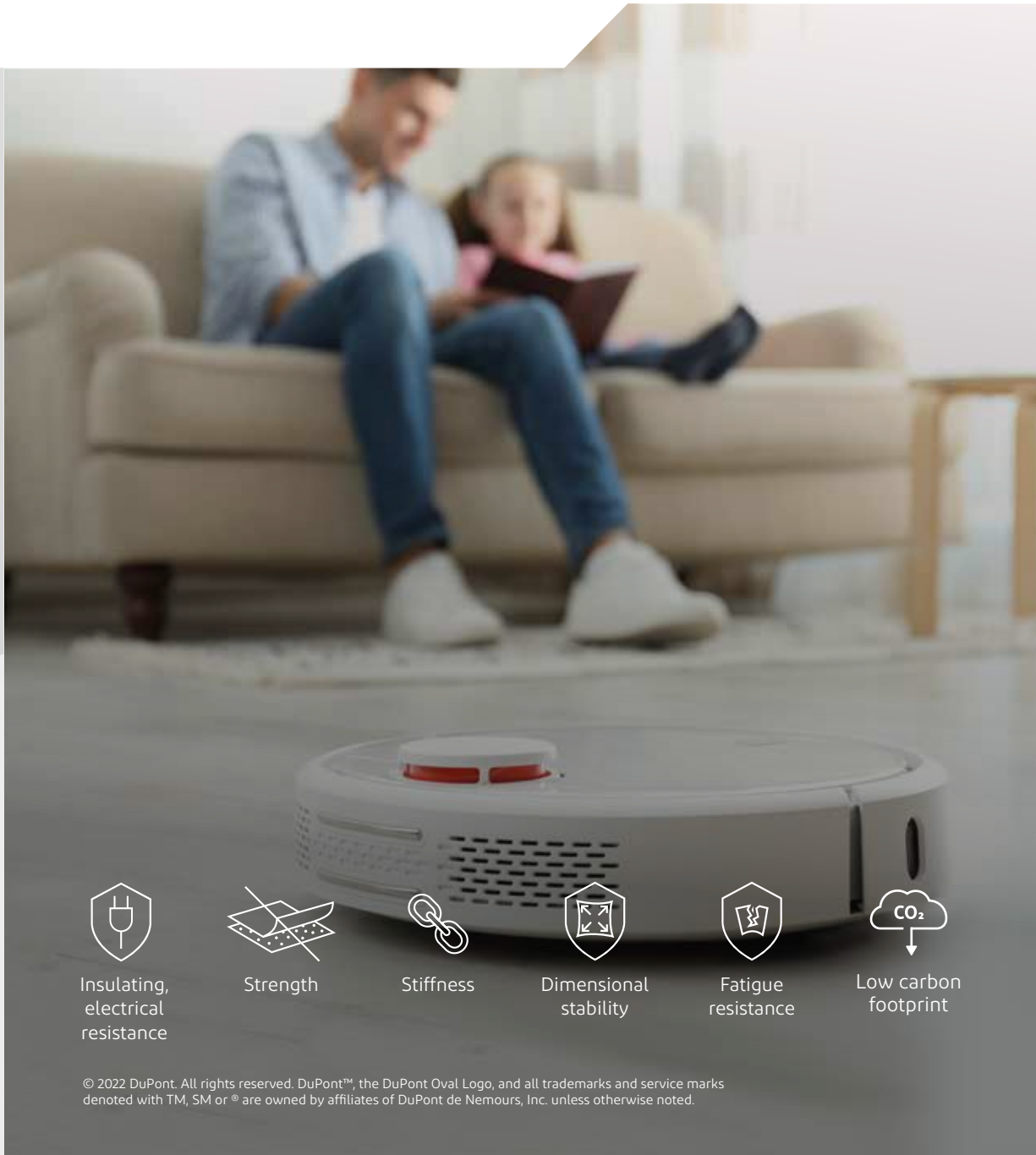
- Robot vacuums must have a durable housing, able to bounce off chair legs & other hard objects without damaging precision sensors inside the appliance.
- Consumers want a stylish look because robot vacuums spend most of their useful lives perched in a docking station waiting for their next mission – and often visible to all. Additionally, noise must be kept to a minimum to help preserve a peaceful home environment.
- Reducing the weight of robot vacuums increases their range and makes it easier for consumers to carry them from room to room or between floors of a home.
- Materials selected for the robot vacuum should help the manufacturer achieve its sustainable development goals.

REQUIREMENTS

- Designers of robot vacuums face several challenges that must be addressed to make their product desirable to consumers and also help manufacturers achieve their sustainability goals.
- Today's families focus on quality of life, purchasing appliances that are efficient and durable, and operate quietly.

SOLUTIONS

- Available in multiple grades, **Zytel**® nylon solutions enable greater design freedom and better product performance.
- **Zytel**® RS polyamide provides an optimized balance of high stiffness and suitable strength. The outstanding dimensional stability of the polymer contributes to the precision and sensitivity of the laser sensor.
- **Zytel**® RS resins contain between 20% and 100% renewably sourced material (by weight) derived from castor beans.
- Many vacuum cleaner components can be made from materials with renewable content, helping brand owners reach their sustainability goals.



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