Silicone Rubber Vacuum Bag Sheets for Glass Vacuum Laminating Furnaces - Product Technical Note

This technical note presents the **CNCGLASS** silicone rubber sheet family for vacuum bags used in glass vacuum laminating furnaces, covering product construction, measured performance data and grade selection for glass processors operating vacuum laminating lines.

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1. Application Background

A glass vacuum laminating furnace laminates two or more glass plies with EVA or another interlayer film under heat and vacuum. The chamber is heated while evacuated, and atmospheric pressure compresses the stacked assembly inside the vacuum bag so that trapped air is expelled and bubbles cannot form, producing a clear, well-bonded laminate in a single cycle.

2. Vacuum Bag Construction

The vacuum bag is the core component of a glass vacuum laminating furnace. It is built from two silicone rubber sheets - an upper sheet and a lower sheet - combined with shaped silicone sealing parts. As one of the key components of the whole furnace, the quality of the silicone sheets directly determines the quality of the laminated glass produced.

3. Silicone Rubber Sheet Grades and Performance

Grade	Fabric reinforcement	Colour	Surface finish	Tensile strength (MPa)	Tear strength (N/mm)	Hardness (Shore A)	Elongation at break (%)
Unreinforced, translucent	No	Translucent / white / natural	One gloss side, one matte side	6.0	26	55 ± 5	450
Unreinforced, green	No	Green	One gloss side, one matte side	6.0	26	55 ± 5	450
Fabric-reinforced, green	Yes	Green	One gloss side, one matte side	8.0	32	58 ± 5	650

4. Grade Selection

The two unreinforced grades share the same elastomer property set - 6.0 MPa tensile strength, 26 N/mm tear strength, 55 ± 5 Shore A hardness and 450 % elongation at break - and are selected by colour preference. The fabric-reinforced green grade offers higher tensile strength (8.0 MPa), tear strength (32 N/mm) and elongation at break (650 %) at a slightly higher hardness (58 ± 5 Shore A), suited to applications that place greater mechanical demand on the vacuum bag sheets.

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