

Adhesives Guide

Volara and Minicel are smooth, closed-cell, cross-linked, polyolefin foams. They can be enhanced by adhesive bonding to many substrates that will create products with specific properties and appearances.

The strength of the bond throughout processing and the life of the product are of critical importance. In the majority of cases a "foam tearing bond" is required. To achieve this, the adhesive must first wet and spread evenly and then mechanically or chemically fasten to both surfaces.

A number of adhesive types have been used successfully with Volara® and Minicel® including:

- Solvent based contact adhesives
- Water and solvent based pressure-sensitive adhesives
- Rubber based laminating adhesives
- Hot-melt adhesives
- Hot-melt films
- Moisture-cured Polyurethane adhesives

Polyolefins in general are difficult materials to bond to, and hence require special formulations or surface pretreatment to achieve an acceptable level of bond strength. Common surface treatments are:

- Corona treatment
- Plasma surface treatment
- Chemical or solvent treatment
- Flame treatment
- Primer or tie coating Adhesive film lamination

A number of techniques can be used to apply adhesives to Volara® and Minicel®. The applicability of any one technique is dependent on the type of adhesive and equipment availability. The more common techniques are:

- Spraying
- Brushing
- Roll coating
- Knife coating
- Curtain coating
- Heat lamination - adhesive films
- Hot melt extrusion coating