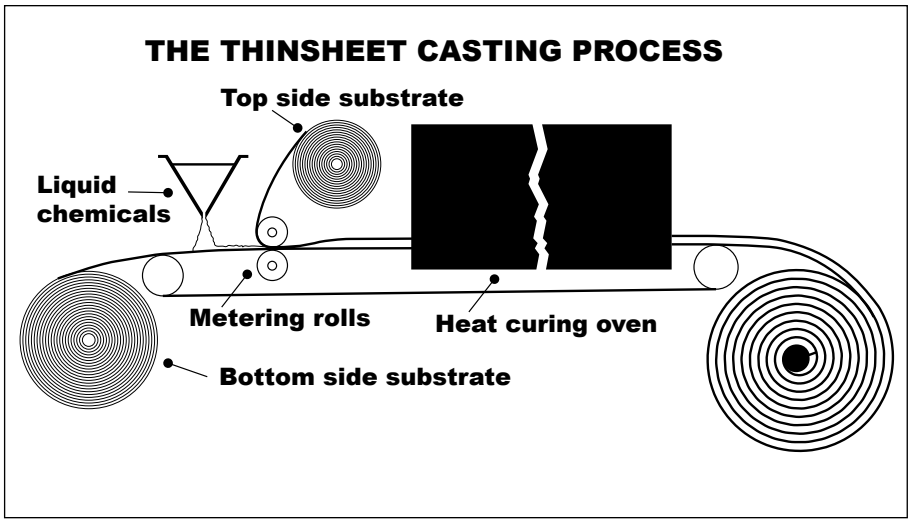
Economical, Single-Step Process Produces Urethane Foams

Introduction

To produce its TUFCOTE® acoustical foams and composites and ISOLOSS® specialty urethanes, E-A-R Specialty Composites uses a proprietary thin sheet casting process that provides superior control over product quality and consistency. This unique process also permits economical in-line, adhesive-free production of multi-layer composites.



With the thin sheet process, liquid material formulations are cast in continuous lengths to desired thicknesses. Materials can be produced in sheets or rolls in a continuous range of densities, from 1.8 PCF to 110 PCF, and in thicknesses from less than .030-inch to 2 inches.

The thin sheet method affords maximum precision in foam processing, eliminating the inconsistencies in cell structure and air flow resistance that can occur in sheets sliced from conventionally cured bun-stock foams. Additionally, through careful control of the foam formulation and constant monitoring throughout processing, E-A-R's technicians can engineer selected properties—permeability, resilience, tensile strength and compression set resistance—into the materials.

E-A-R's thin sheet casting process is also the most precise, reliable and cost-effective way to place a performance spacer between two substrates. To produce faced foams and multi-layer composites, liquid foam formulations are cast directly onto or between substrates or facing materials. During curing, the foam bonds chemically with the facings and substrates, forming a soft, flexible bond line. This adhesive-free lamination not only results in composites that meet exacting thickness tolerances, but also provides bonds that resist stiffening and failure.

E-A-R currently utilizes its proprietary thin sheet casting method for the TUFCOTE line of acoustical foams, barriers and composite products, and high performance ISOLOSS LS cellular urethanes.

Aearo E-A-R Specialty™ Composites

Aearo Company
7911 Zionsville Road
Indianapolis, IN 46268
Toll-free (877) EAR-IDEA
(327-4332)
Fax (317) 692-3111
Website: www.earsc.com
E-mail: solutions@earsc.com

Printed 8.01