

OP-11-844

Tuesday, May 10, 2011, 11:10-11:30 am Room: Karam 2

AN EXPERIMENTAL STUDY ON THE STRUCTURAL AND MECHANICAL PROPERTIES OF BATCH PROCESSED PVC/NBR BLEND FOAMS

Taher Azdast, Kiumars Shakarami, Ali Donyavi, Samarand Rash ahmadi,

Faculty of Engineering, urmia univercity kiumars.shakarami@gmail.com

Miscible blends of poly(Vinyl chloride)/nitralle butadiene rubber (PVC/NBR) were batch-foamed using CO2 as a blowing agent as a function of foaming temperature, foaming time, and blend composition. Foam morphologies were characterized in terms of the cell density, foam density, and average cell size. Elastic modulus, tensile strength, and elongation at break of the foamed PVC/NBR samples were measured for different cell morphologies. The findings show that the mechanical properties are significantly affected by the foaming parameters that varied with the cell morphologies.