

Thermal Characterization of Friction Stir Welded Butt Joints

S. Beccari¹, L. D'Acquisto², L. Fratini^{1,a} and C. Salamone¹

¹Dipartimento di Tecnologia Meccanica, Produzione e Ingegneria Gestionale, Univeristà di Palermo, Viale delle Scienze, 90128 Palermo, Italy

² Dipartimento di Meccanica, Univeristà di Palermo, Viale delle Scienze, 90128 Palermo, Italy

^aabaqus@dtpm.unipa.it

Keywords: welding, friction, thermography

Abstract. In the paper the thermal characterization of friction stir welding processes (FSW) of aluminium alloys is presented. In particular both embedded thermocouples and a thermography analysis were utilized in order to acquire the temperature vs. time curves in point of interests of the joints and the temperature distributions, respectively. Such kind of results are very important in order to investigate the material conditions during the FSW process.