Durability Enhancements in Concrete with Fiber Reinforcement

Papers Presented at the ACI Spring 2008 and Spring 2009 Conventions
ACI SP 276

Los Angeles, California, USA
30 March – 3 April 2008
San Antonio, Texas, USA
15 – 19 March 2009

Editors:

Corina-Maria Aldea
Nur Yazdani

ISBN: 978-1-61839-204-6
# TABLE OF CONTENTS

SP-276—1
Cracking Histories of Synthetic Fiber Reinforced Concrete Applications .......... 1
Author: Clifford N. MacDonald

SP-276—2
Improving the Plastic Shrinkage Cracking Resistance of Self-Consolidating Concrete with Fiber Addition ................................................... 11
Authors: Dean Forgeron and Jean-Francois Trottier

SP-276—3
Durability Enhancements of Cracked Concrete by Fibers ............................. 25
Authors: Corina-Maria Aldea and Surendra P. Shah

SP-276—4
Fiber Reinforced Concrete of Enhanced Fire Resistance for Tunnel Segments .... 39
Authors: L.A.P. Lourenço, J.A.O. Barros, and J.G.A. Alves

SP-276—5
FRC Performance Comparison: Uniaxial Direct Tensile Test, Third-Point Bending Test, and Round Panel Test ........................................... 73
Authors: Shih-Ho Chao, Jae-Sung Cho, Netra B. Karki, Dipti R. Sahoo, and Nur Yazdani

SP-276—6
Use of Steel Fiber Reinforced Concrete in Anchorage Zone of Post-Tensioned Concrete Girders ............................................................. 93
Authors: Kamal S. Tawfiq, Brenda Robinson, and Nur Yazdani