

# JUSSARA TANESI, PHD, FACI

---

## PUBLICATIONS

---

### **Editor:**

Tanesi, J. SP 266 Modeling As a Solution to Concrete Problems. American Concrete Institute, Michigan, 2009.

### **Books and Guides:**

- Kosmatka, S.; Kerkhoff, B.; Panarese, W. and J. Tanesi. *Diseño y Control de Mezclas de Concreto*. PCA - Portland Cement Association, Illinois, 2004. In Spanish (Spanish version of Design and Control of Concrete Mixtures).
- Panarese, W. C. and Tanesi, J. *Guía del albañil*. PA 399, PCA - Portland Cement Association. Spanish version of Cement Mason's Guide to Building Concrete Walls, Drives, Patios and Steps, Illinois, 2003. (In Spanish)

### **Book Chapter:**

Central and South American Cement - Standards and Specifications. Part of the book: Innovations in Portland Cement Manufacturing. Edited by Bhatty, J.; Miller, F. and Kosmatka, S. PCA - Portland Cement Association, Illinois, USA 2004.

### **Technical Reports:**

#### **ACI Documents:**

2014: ACI 238.2T-14 TechNote: Concrete Thixotropy.

2010: ACI 231-10: Report on Early-Age Cracking: causes, Measurements and Mitigation.

2008: ACI 238.1R-08 Report on Measurements of Workability and Rheology of Fresh Concrete.

### **Other Technical Reports:**

- Tanesi, J., Beyene, M., Kim, H., Muñoz, J., Ardani, A., Bentz, D., Arnold, J., Boisclair, M, Jones, S., Rothfeld, P., Stutzman, P. "Influence of Aggregate Characteristics on Concrete Performance", NIST Technical Note 1963, National Institute of Standards and technology, Gaithersburg, MD, 2017. <http://doi.org/10.6028/NIST.TN.1963>
- Tanesi, J.; Ardani, A.; Meininger, R. and Nicolaescu, N. Evaluation of High-Volume Fly Ash (HVFA) Mixtures (Paste And Mortar Components) Using a Dynamic Shear Rheometer (DSR) and an Isothermal Calorimeter. NTIS report PB 2012-112546, FHWA HRT-12-063, July 2012.
- Tanesi, J.; and Meininger, R. "Freeze-thaw resistance of concrete with marginal air content", Federal Highway Administration, Publication No. FHWA-HRT-06-117, 2006.
- Tanesi, J. Cracking due to Shrinkage in Polypropylene Fiber reinforced Concrete. Technical Bulletin in Portuguese. Boletim técnico BT/PCC/239. Escola Politécnica da USP. Departamento de Engenharia de Construção Civil, São Paulo, Brazil 1999. (In Portuguese).

### **Publications in Refereed Journals:**

- Gudimetla, J., Tanesi, J., Crawford, G., and Ardani, A., "Evaluation of the Specimen Saturation Criterion for the AASHTO T336 Test Method," Advances in Civil Engineering Materials, Vol. 6, No. 1, 2017, pp. 119-133.
- Tanesi, J., Kim, H., Beyene, M., & Ardani, A. Super Air Meter for Assessing Air-Void System of Fresh Concrete. ASTM Advances in Civil Engineering Materials Journal. Special issue on Recent Advances in the freeze-thaw and scaling behavior of cement-based materials, vol.5, n2, December 2016.
- Tanesi, J.; Munoz, J.; Kim, H.; Ardani, A. The effect of nano materials on HVFA mixtures. In Nanotechnology in Construction, Springer International Publishing, May, 2015, pp. 421-426.
- Bentz, D.; Ardani, A.; Barrett, T.; Jones, S.; Lootens, D.; Peltz, M.; Sato, T.; Stutzman, P.; Tanesi, J.; Weiss,

- J. Multi-scale investigation of the performance of limestone concrete. *Construction and Building Materials*, Vol. 75, Jan 2015, 1-10.
- Gudimettla, J.; Crawford, G.; Tanesi, J.; Ardani, A. Interlaboratory Study and Precision Statement for the AASHTO T 336 Test Method. In: *Transportation Research Record: Journal of the Transportation Research Board*. Transportation Research Board of National Academies, Washington, D.C., 2015.
  - Wang, X.; Wang, K. Tanesi, J.; Ardani. A. Effects of Nanomaterials on the Hydration Kinetics and Rheology of Portland Cement Pastes. *Advances in Civil Engineering Materials, Journal of the American Society for testing and Materials, ASTM*, November 2014.
  - Tanesi, J; Bentz, D.; Ardani, A. Enhancing the Performance of High Volume Fly Ash Concretes Using Fine Limestone Powder. *ACI SP 294 – Advances in Green Binder Systems*. American Concrete Institute, Michigan, October, 2013.
  - Tanesi, J; Ardani, A. Isothermal Calorimetry as a Tool to Evaluate Early Age Performance of Fly Ash Mixtures. In: *Transportation Research Record: Journal of the Transportation Research Board*, No. 2342, Transportation Research Board of National Academies, Washington, D.C., 2013.
  - Tanesi, J; Gudimettla, J.; Crawford, G.; Ardani, A. Ruggedness Study on the Coefficient of Thermal Expansion of Concrete Test Method (AASHTO T336). In: *Transportation Research Record: Journal of the Transportation Research Board*, No. 2342, Transportation Research Board of National Academies, Washington, D.C., 2013.
  - Tanesi, J; Ardani, A. Reducing the Specimen Size of Concrete Flexural Strength Test (AASHTO T97) for Safety and Ease of Handling. In: *Transportation Research Record: Journal of the Transportation Research Board*, No. 2342, Transportation Research Board of National Academies, Washington, D.C., 2013.
  - Tanesi, J.; Silva, M.; Gomes, V. and Gomes, V. Guidelines for the development of concrete performance-based specifications in Brazil. *IBRACON Structures and Materials Journal*, Vol. 5, Number 2, IBRACON, Brazil, 2012.
  - Tanesi, J.; Crawford, G.; Nicolaescu, M.; Meininger, R. and Gudimettla, J. New AASHTO 336-09 Coefficient of thermal expansion test method: how will it affect you? In: *Transportation Research Record: Journal of the Transportation Research Board*, No. 2164, Transportation Research Board of National Academies, Washington, D.C., 2010.
  - Crawford, G.; Gudimettla, J. and Tanesi, J. Interlaboratory Study on Measuring Coefficient of Thermal Expansion of Concrete. In: *Transportation Research Record: Journal of the Transportation Research Board*, No. 2164, Transportation Research Board of National Academies, Washington, D.C., 2010, 58-65.
  - Tanesi, J.; Silva, M.; Gomes, V. and Camarini, G. From prescription to performance: international trends on concrete specifications and the Brazilian perspective. *IBRACON Structures and Materials Journal*, Vol. 3, Number 4, IBRACON, Brazil, 2010.
  - Graybeal, B. and Tanesi, J. Durability of an Ultra high-Performance Concrete. *ASCE Journal of Materials in Civil Engineering*, Vol. 19, No. 10, October 2007.
  - Tanesi, J. and Meininger, R. Freeze-Thaw Resistance of Concrete with Marginal Air Content. In: *Transportation Research Record: Journal of the Transportation Research Board*, No. 2020, Transportation Research Board of National Academies, Washington, D.C., 2007.
  - Tanesi, J.; Kutay, E.; Abbas, A. and Meininger, R. Effect of CTE test variability on concrete pavement performance as predicted using the mechanistic-empirical pavement design guide. In: *Transportation Research Record: Journal of the Transportation Research Board*, No. 2020, Transportation Research Board of National Academies, Washington, D.C., 2007.

## **Conference Papers:**

- Kim, H.; Tanesi, J.; Ardani, A. Impact of deicing salts on transport properties of concrete. In *Transportation Research Board 96th annual meeting*. Washington D.C., (17-01124), January, 2017.
- Tanesi, J.; Bentz, D.; Jones, S.; Beyene, M.; Kim, H.; Arnold, J.; Stutzman, P. Influence of aggregate properties on concrete mechanical performance. In *Transportation Research Board 96th annual meeting*. Washington D.C.,

(17-01716), January, 2017.

- Kim, H., Tanesi, J. Ardani A. Analysis of the impact of deicing salts on transport properties of concrete – preliminary results. 11th International Conference on Concrete Pavements (ICCP). San Antonio, Texas, September 2016.
- Tanesi, J.; Kim, H.; Beyene, M.; Ardani, A. Super Air Meter for Assessing Air-Void System of Fresh Concrete. 94<sup>th</sup> TRB Annual Meeting. Transportation Research Board of the National Academies (no. 15-2888). Washington, D.C., USA, 2015.
- Gudimettla, J.; Crawford, G.; Tanesi, J.; Ardani, A. Effect of Specimen Saturation on Concrete Coefficient of Thermal Expansion. 94th TRB Annual Meeting. Transportation Research Board of the National Academies (No.15-3382). Washington, D.C., USA, 2015.
- Tanesi, J.; Ardani, A.; Meininger, R. and Nicolaescu, N. Evaluation of High-Volume Fly Ash (HVFA) Mixtures (Paste and Mortar Components) Using a Dynamic Shear Rheometer (DSR) and an Isothermal Calorimeter (Interim Results). FHWA International Conference on LLCP, Seattle, September 2012.
- Silva, M.; Tanesi, J. and Gomes, V. A critique on the service life and durability in NBR 6118/2003. Uma análise crítica sobre a vida útil e a durabilidade na NBR 6118/2003. In: 51º Congresso Brasileiro do Concreto. Ibracon, Curitiba, Paraná, Brazil, Oct. 2009. (In Portuguese)
- de Larrard F., Chandler J., Christensen J., Hammoum F., Henrichsen A., Himerik T., Sliwa N., J. Tanesi J., Thoegersen F., Vorobieff G., White J., Youtcheff J., A Cementitious Long-Life Wearing Course to Reduce Frequency of Maintenance Works on High-Traffic Roads. Transport Research Arena Europe, Ljubljana, Slovénie, 21-24 avril 2008.
- Tanesi, J.; Camarini, G. and Silva, V. Concrete Performance Specifications. Especificações por Desempenho Aplicadas ao Concreto. In: 50º Congresso Brasileiro do Concreto. Ibracon, Salvador, Bahia, Brazil, Sept. 2008. (In Portuguese)
- Meininger, R. and Tanesi, J. Lab of the Future—Mixture Design and Analysis for Optimized Concrete Paving Performance. International Conference on Optimizing Paving Concrete Mixtures and Accelerated Concrete Pavement Construction and Rehabilitation. Atlanta, Georgia, November 7 to 9, 2007.
- Tanesi, J. and Meininger, R. Coefficient of Thermal Expansion – Its role in concrete pavement performance. International Workshop on Best Practices for Concrete Pavements. Editors: Jose Balbo, Lev Khazanovich, Kathleen Hall, Recife, Brazil October 21-23, 2007.
- Tanesi, J.; Meininger, R.; Nicolaescu, m.; Kutay, E. and Abbas, A. Measurement of the coefficient of thermal expansion for use in concrete pavement design. Proceedings of the International Conference on Advanced Characterisation of Pavement and Soil Engineering, Editor(s) - Andreas Loizos, Tom Scarpas, Imad L Al-Qadi, 20- 22 June 2007, Athens, Greece.
- Hossain, M.; Khanum, T.; Tanesi, J.; Schieber, G. and Montney, R. The PCC Coefficient of Thermal Expansion Input for the Mechanistic-Empirical Pavement Design Guide. 85<sup>th</sup> TRB Annual Meeting. Transportation Research Board of the National Academies. Washington, D.C., USA, 2006.
- Tanesi, J. and Simon, M. Workability Assessment of Low Slump Concrete. 84<sup>th</sup> TRB Annual Meeting, Transportation Research Board of the National Academies. Washington, D.C., USA, 2005.
- Tanesi, J.; Graybeal, B. and Simon, M. Effects of Curing Procedure Freeze-thaw Durability of Ultra High Performance Concrete. RILEM. 6<sup>th</sup> Symposium on Fiber Reinforced Concrete, Italy, 2004.
- Tanesi, J. and Figueiredo, A. Polypropylene fiber reinforced concrete: Shrinkage cracking. In: International Conference on Composites in construction. Proceedings. October, 2001. Porto, Portugal.
- Figueiredo, A.; Nunes, N. L. and Tanesi, J. Mix design analysis on steel fiber reinforced concrete. In: BEFIB' 2000
- Fifth RILEM Symposium on Fibre-Reinforced Concretes (FRC). Proceedings. Lyon, France, September 13-15, 2000.
- Tanesi, J and Figueiredo, A. Efficiency of polypropylene fiber reinforcement in Concrete. Eficiência do Reforço de Fibras de Polipropileno em Concretos. IV Simpósio EPUSP sobre estruturas de concreto.

Proceedings. Escola Politécnica da USP, São Paulo, Brazil, August 2000. (In Portuguese)

- Tanesi, J. and Figueiredo, A. Shrinkage cracking in polypropylene fiber reinforced concrete. Fissuração por retração em concretos reforçados com fibras de polipropileno (CRFP). In: VIII Encontro Nacional de tecnologia do ambiente construído. Proceedings. Salvador, Bahia, Brazil 2000. (In Portuguese)
- Tanesi, J. and Figueiredo, A. Shrinkage cracking in polypropylene fiber reinforced concrete. Fissuração por retração em concretos reforçados com fibras de polipropileno (CRFP). In: IV Conferencia científico-técnica de la construcción. Proceedings. Ciudad de La Habana April 2000. In Portuguese.
- Tanesi, J. and Figueiredo, A. Fiber reinforced materials in construction. Materiais com fibras de polipropileno para construção civil. Congresso Internacional de não tecidos e tecidos técnicos. Proceedings. São Paulo, Brazil. 1999. (In Portuguese)
- Tanesi, J.; Torneri, P. and Figueiredo, A. The influence of polypropylene fibers on the shrinkage cracking control. A influência das fibras de polipropileno na fissuração por retração. In: IV Congresso Iberoamericano de patología das construções. IV Congresso de controle de qualidade. Proceedings Porto Alegre, Brazil, 1997. (In Portuguese)
- Nunes, N.; Tanesi, J. and Figueiredo, A. Use of steel fiber reinforced concrete in structures and pavement repair. Aplicação do concreto reforçado com fibras de aço na recuperação de estruturas e pavimentos. IV Congresso Iberoamericano de patología das construções. Proceedings Porto Alegre, Brazil, 1997. (In Portuguese)
- Tanesi, J. Agopyan, V. Plastic fiber reinforced composites in construction. Compósitos reforçados com fibras plásticas para a construção civil. In: II Encontro tecnologia de sistemas: Plásticos na construção civil. Escola politécnica da Universidade de São Paulo. Proceedings São Paulo, 1997. (In Portuguese).

### **Technical Translation:**

Prácticas Recomendadas para el Asentamiento de Bloques de Hormigón. PA398, PCA - Portland Cement Association. Spanish version of Recommended Practices for Laying Concrete Block, Illinois, 2003. (In Spanish)

### **Periodicals:**

- Ferraris, C.; Billberg, P.; Ferron, R.; Feys, D.; Hu, J; Kawashima, S.; Koehler, E.; Sonebi, M.; Tanesi, J. and Tregger, N. Role of Rheology in Achieving Successful Concrete Performance. Concrete International 39(6), June 2017, 51-59.
- Bentz, D.; Tanesi, J.; Ardani, A. Ternary Blends for Controlling Cost and Carbon Content. Concrete International 35(8), August 2013, 51-59.
- Tanesi, J.; Crawford, G.; Gudimetla, J. and Ardani, A. Coefficient of Thermal Expansion of Concrete - Changes to test method will enhance pavement designs. Concrete International 34(4), April 2012.
- Silva, G.; Gomes, V. and Tanesi, J. A critique on the service life and durability in NBR 6118/2003. Uma análise crítica sobre a vida útil e a durabilidade na NBR 6118/2003. In: Concreto e Construções. Number 58, IBRACON, Brazil, 2010. (In Portuguese).
- Figueiredo, A. and Tanesi, J. Polypropylene fiber reinforced concrete. Concreto con Fibras de Polipropileno, Techne, Journal no. 66. Editora PINI. São Paulo, Brazil September, 2002. (In Portuguese)