



I-FIT Testing A Contractor's Point of View

December 12, 2016

University of Illinois Bituminous Paving Conference

Background

- ***Why did ORP decide to invest time and money into I-FIT at this point?***
 - **Background in pavement materials research (U of I / HRG)**
 - **Already performing Hamburg Wheel testing**
 - **Purchased in Spring 2012**
 - **Tested all mixes for 2013 season (Design & Production)**
 - **Learned a lot about sample preparation**
 - **Location**

Hamburg Wheel - Sample Preparation



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Hamburg Wheel - Sample Preparation



Hamburg Wheel



Hamburg Wheel – Specimen Testing



I-FIT

- ***Purchased Testing Equipment in Fall of 2015***

- **Received Equipment the day after the 2015 Bituminous Paving Conference**
- **Planned on Testing Split Samples from 2015**
 - **QCP / PFP Plate Samples**
- **Low Bidder on an I-FIT “Pilot Project” for 2016**
 - **Became an incentive to “turn it on” - ☺**

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I-FIT

- ***Initial Struggles in a QC Lab***

- **Space – We are already maxed out**
- **Saws – Precision / Messy / Must not Freeze**
- **Cutting Jigs**
- **Saw Blades**
- **Time**
- **Temperature Control**

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Space / Saws



Space / Saws



Space / Saws



I-FIT – Half Cut



I-FIT – Time



Illinois Flexibility Index (I-FIT)



What do Contractors Want to Know about I-FIT?

- **Where do my mixes fall?**
- **How do I make them better (Higher FI)?**
 - *Without hurting Hamburg*
- **Are there simple adjustments that can be made?**

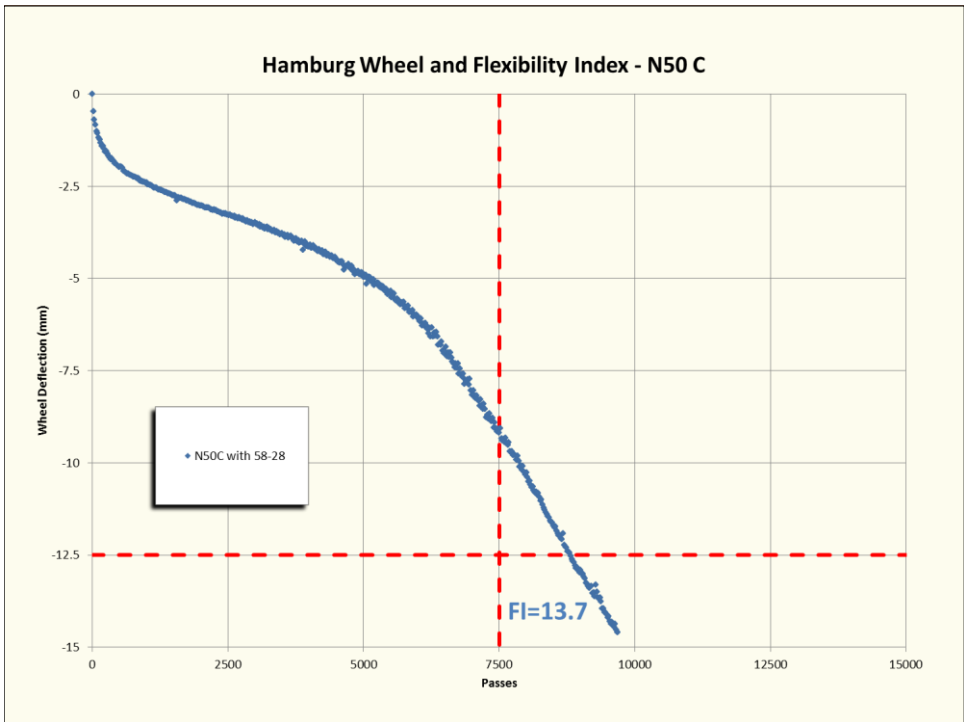
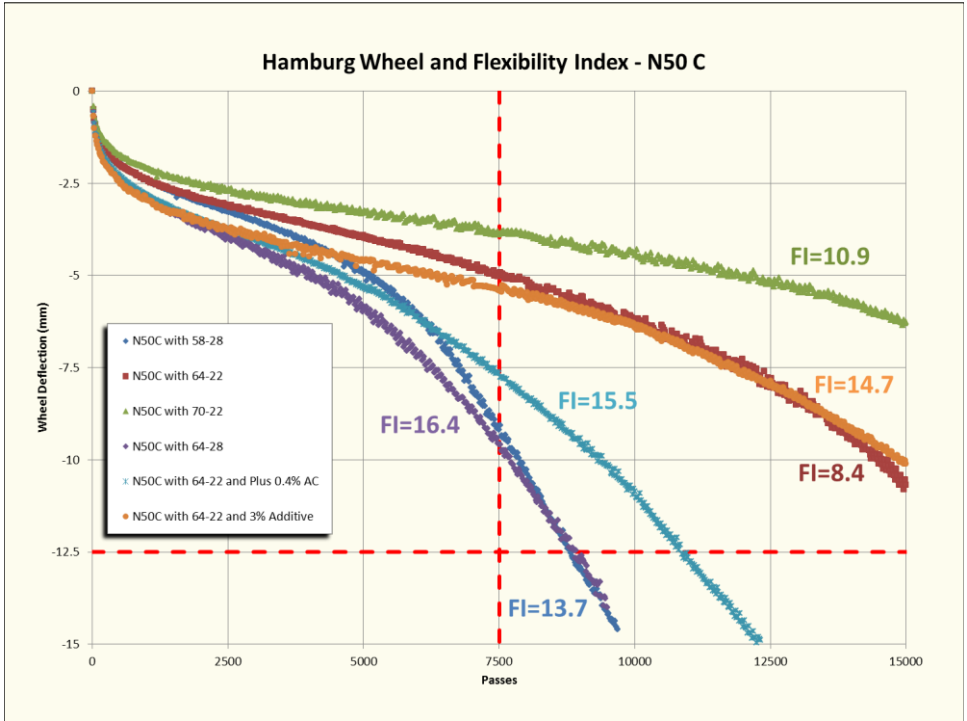


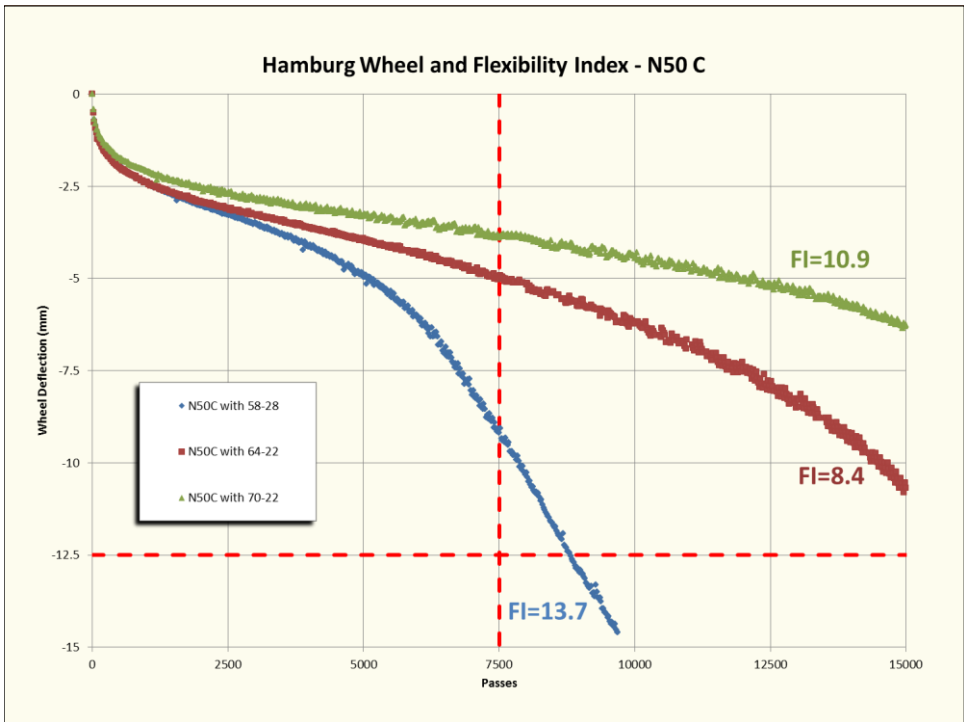
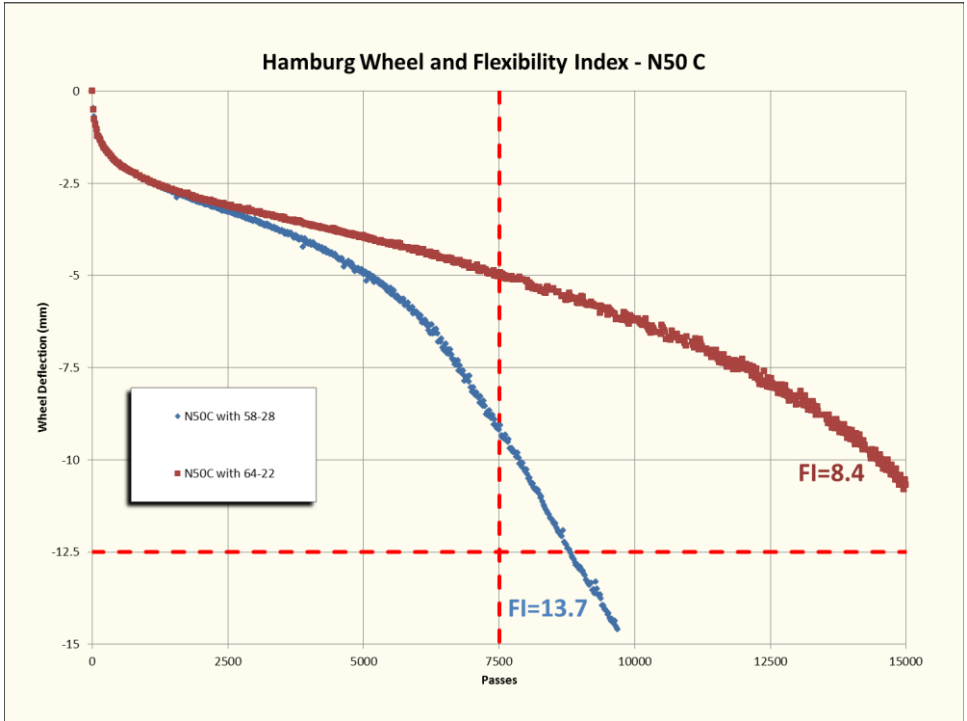
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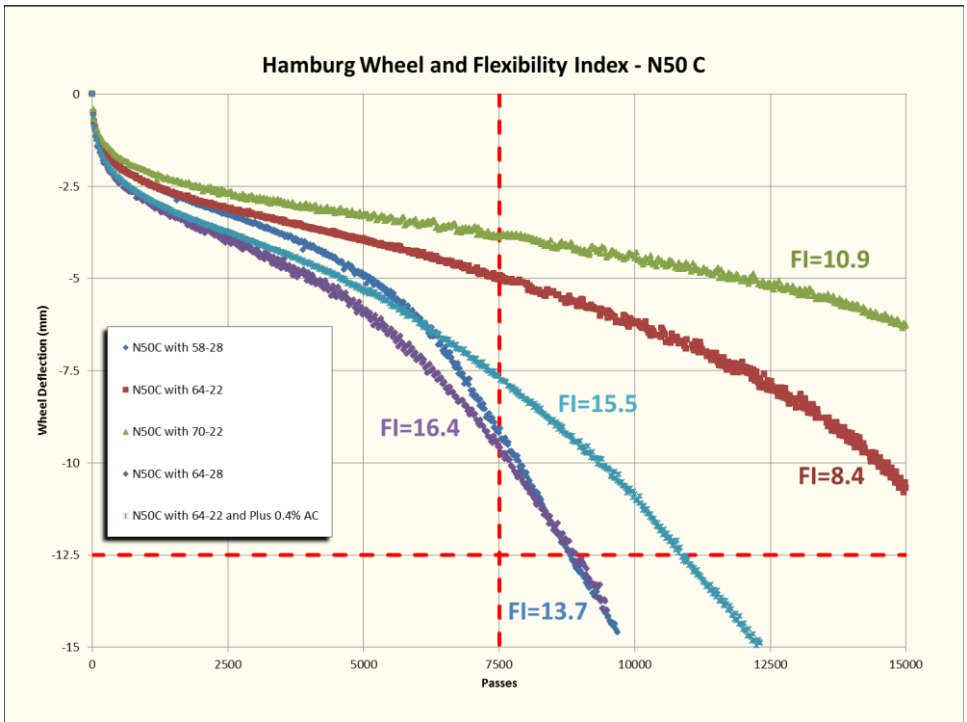
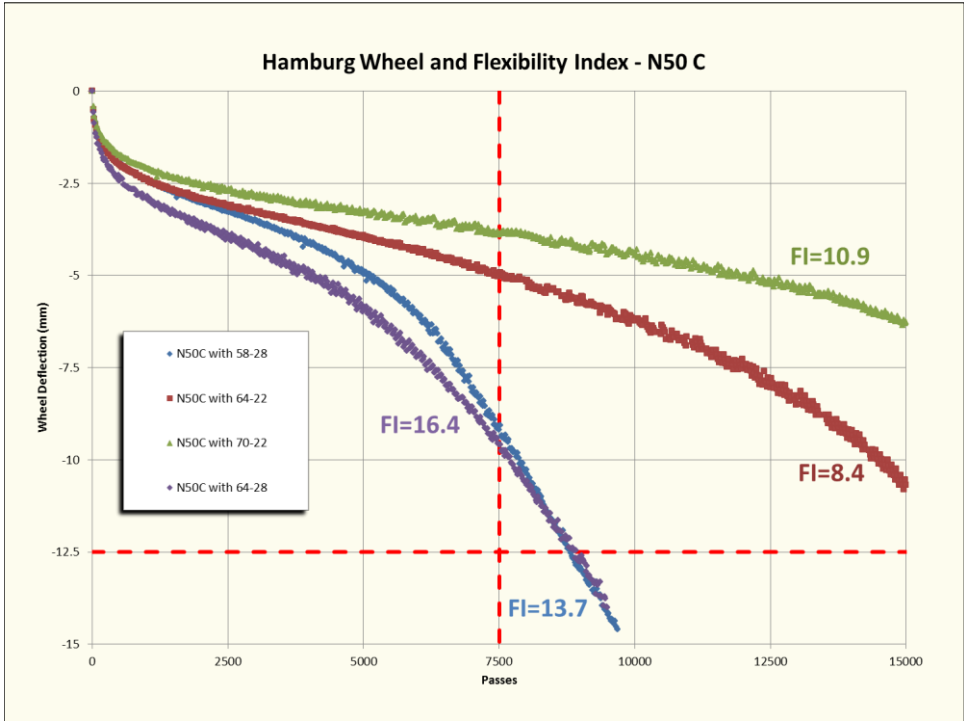
What Can We Try?

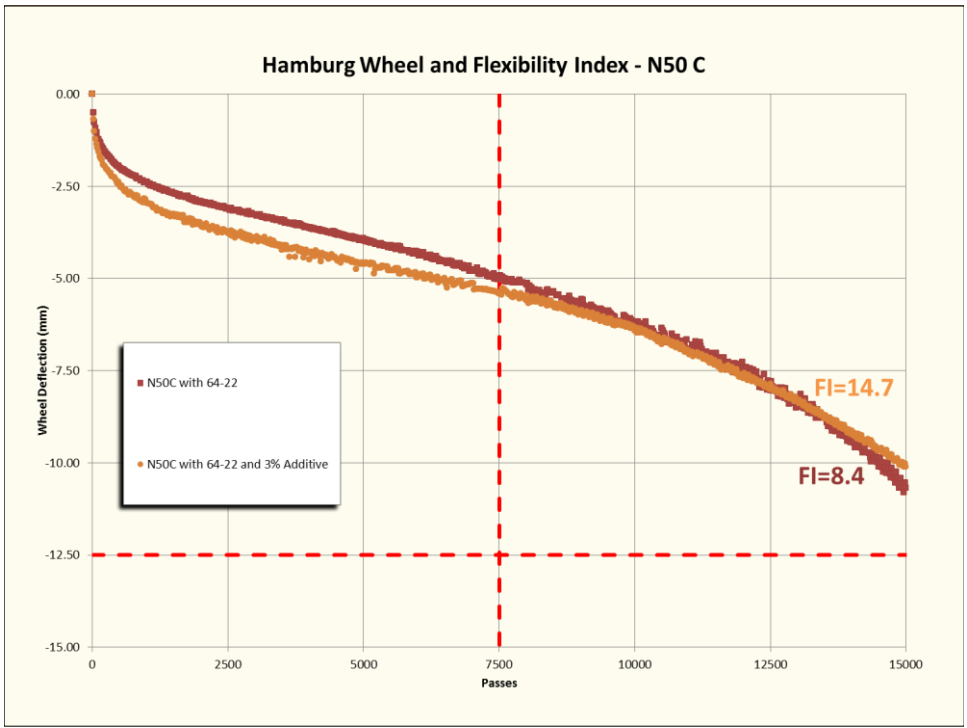
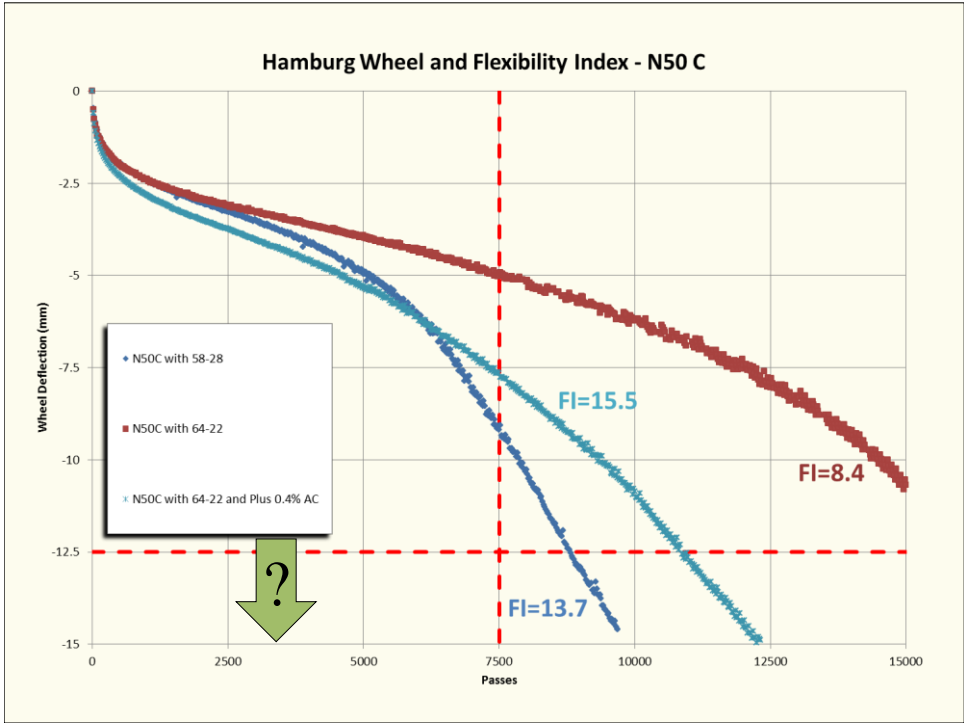
- **We all probably have “gut” feelings of what can effect the I-FIT FI value**
- **What can we easily change and hope to see an effect?**
- **Let's see what different liquids do**
 - Original Design – PG 58-28 (Grade Bumped)
 - PG 64-22
 - PG 70-22 (SBS)
 - PG 64-28 (SBS)
 - PG 64-22 with extra AC
 - PG 64-22 with an additive

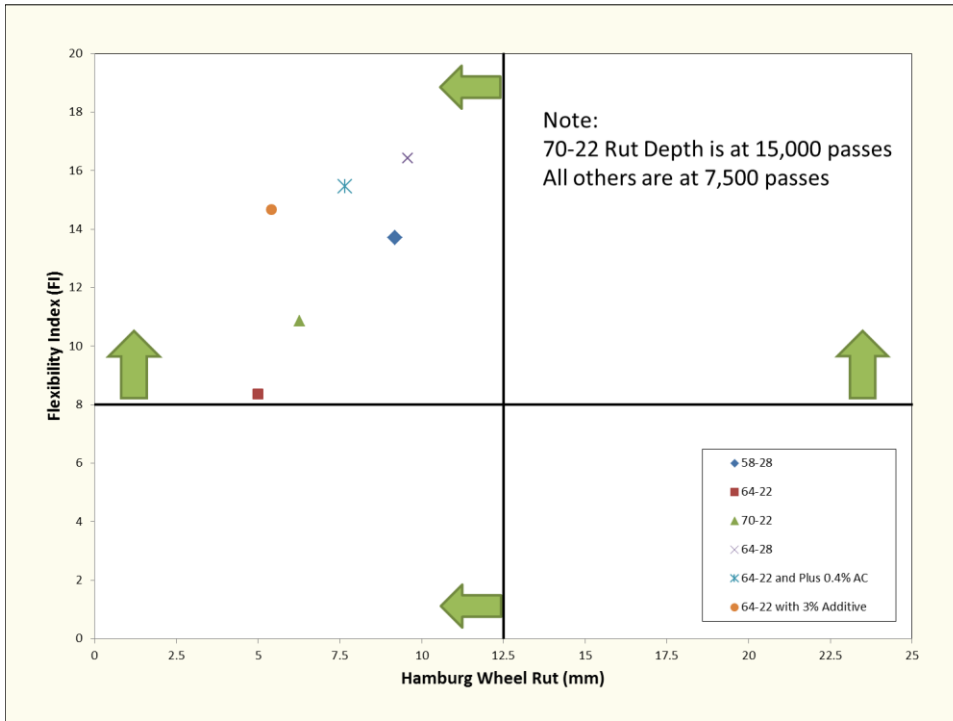
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What Do We Need to Consider?

- **Can we make this work in a QC Lab?**
 - *Maybe?*
- **Where do our mixes stand now?**
 - *Start testing them (IDOT / Consultants)*
- **Can we make an adjustment?**
 - *Possibly*
 - *Need to see how other variables effect FI (NMAS)*
- **Can we get away from Method Specs?**
 - *Possibly*
 - *Moving in the right direction*

Final Questions or Comments?

Thank You!