

Indirect Tensile Modulus Test

Test method: ASTM D4123-82 / AASHTO TP31 (horiz. lvdts only, assumed Poisson's ratio)
Data fileName: C:\IPCglobal UTS\003 IT Modulus Test\CP01-A40M100.D003
Template file name: C:\IPCglobal UTS\003 IT Modulus Test\Templates\Default.P003
Test date & time: 13/05/2013 16:28:30
Project:
Operator: Luiz_Leticia_Eduardo
Comments: CP01-A40M100

Setup Parameters

Target temperature (°C): 25
Loading pulse width (ms): 100
Pulse repetition period (ms): 1000
Conditioning pulse count: 5
Peak loading force (N): 1000
Estimated Poisson's ratio: 0.3
Seating force: AASHTO TP31 (10% of peak)

Specimen Information

Identification:
Remarks...

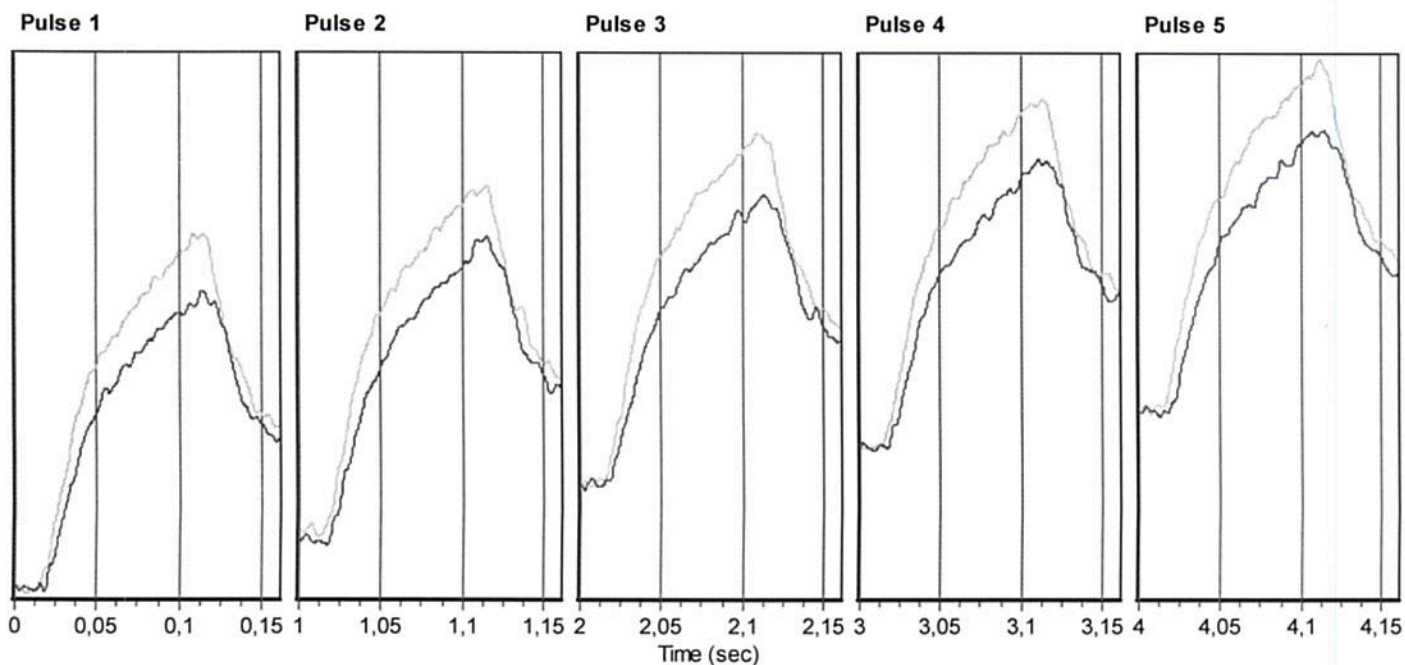
| Dimensions | Point 1 | Point 2 | Point 3 | Point 4 | Point 5 | Point 6 | Average | Std Dev |
|------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Length (mm) | 61,6 | 61,7 | 61,7 | 61,7 | | | 61,7 | 0,1 |
| Diameter (mm) | 101,6 | 101,8 | 102,0 | 101,6 | | | 101,7 | 0,2 |
| Cross-sectional area (mm²): 8127,3 | | | | | | | | |

Test Results

Conditioning pulses: 5
Core temperature (°C): 29,4
Skin temperature (°C): 29,4
Perm't horiz'l def'n/pulse (µm): 0,665100

| | Pulse 1 | Pulse 2 | Pulse 3 | Pulse 4 | Pulse 5 | Mean | Std. Dev. | %CV |
|---------------------------------------|---------|---------|---------|---------|---------|------|-----------|------|
| Resilient modulus (MPa) | 4133 | 4085 | 4006 | 4017 | 3915 | 4031 | 74,51 | 1,85 |
| Total recoverable horiz. deform. (µm) | 2,24 | 2,26 | 2,31 | 2,30 | 2,36 | 2,29 | 0,04 | 1,86 |
| Peak loading force (N) | 1001 | 1000 | 1000 | 1000 | 1000 | 1000 | 0,34 | 0,03 |
| Recoverable horiz. deform. #1 (µm) | 1,21 | 1,24 | 1,27 | 1,28 | 1,32 | 1,27 | 0,04 | 2,99 |
| Recoverable horiz. deform. #2 (µm) | 1,02 | 1,02 | 1,03 | 1,02 | 1,04 | 1,03 | 0,01 | 0,54 |
| Seating force (N) | 100 | 100 | 100 | 100 | 100 | 100 | 0,22 | 0,22 |

— Horizontal deformation #1 — Horizontal deformation #2



Indirect Tensile Modulus Test

Test method: ASTM D4123-82 / AASHTO TP31 (horiz. lvdts only, assumed Poisson's ratio)

Data fileName: C:\IPCglobal UTS\003 IT Modulus Test\CP02-A40M100.D003

Template file name: C:\IPCglobal UTS\003 IT Modulus Test\Templates\Default.P003

Test date & time: 13/05/2013 16:34:02

Project:

Operator: Luiz_Leticia_Eduardo

Comments: CP02-A40M100

Setup Parameters

Target temperature (°C): 25

Loading pulse width (ms): 100

Pulse repetition period (ms): 1000

Conditioning pulse count: 5

Peak loading force (N): 1000

Estimated Poisson's ratio: 0.3

Seating force: AASHTO TP31 (10% of peak)

Specimen Information

Identification:

Remarks...

| Dimensions | Point 1 | Point 2 | Point 3 | Point 4 | Point 5 | Point 6 | Average | Std Dev |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Length (mm) | 62,2 | 62,2 | 62,1 | 62,5 | | | 62,2 | 0,2 |
| Diameter (mm) | 101,7 | 101,8 | 101,8 | 102,5 | | | 102,0 | 0,3 |

Cross-sectional area (mm²): 8163,7

Test Results

Conditioning pulses: 5

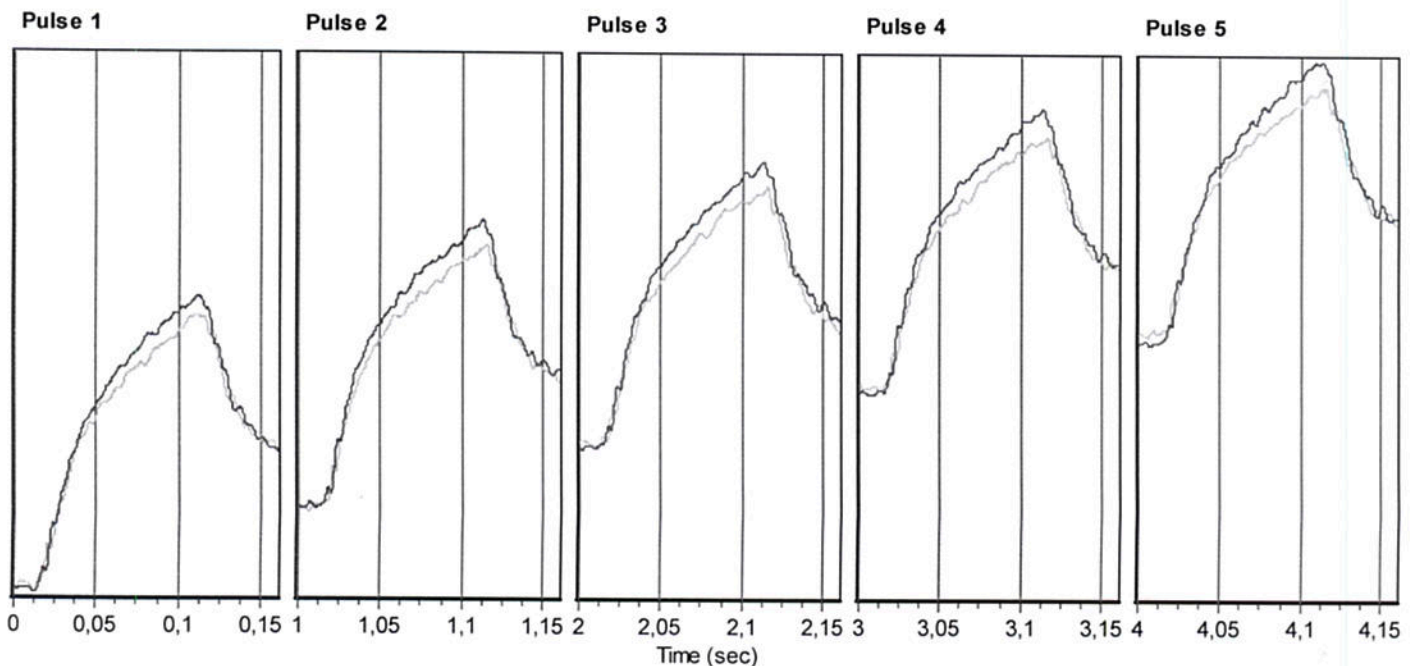
Core temperature (°C): 29,4

Skin temperature (°C): 29,4

Perm't horiz'l def'n/pulse (µm): 1,433000

| | Pulse 1 | Pulse 2 | Pulse 3 | Pulse 4 | Pulse 5 | Mean | Std. Dev. | %CV |
|---------------------------------------|---------|---------|---------|---------|---------|------|-----------|------|
| Resilient modulus (MPa) | 3880 | 3662 | 3637 | 3594 | 3573 | 3669 | 109,84 | 2,99 |
| Total recoverable horiz. deform. (µm) | 2,36 | 2,50 | 2,52 | 2,55 | 2,57 | 2,50 | 0,07 | 2,91 |
| Peak loading force (N) | 1001 | 1000 | 1001 | 1003 | 1001 | 1001 | 0,71 | 0,07 |
| Recoverable horiz. deform. #1 (µm) | 1,12 | 1,15 | 1,15 | 1,15 | 1,19 | 1,15 | 0,02 | 2,01 |
| Recoverable horiz. deform. #2 (µm) | 1,24 | 1,36 | 1,37 | 1,40 | 1,37 | 1,35 | 0,06 | 4,19 |
| Seating force (N) | 100 | 100 | 100 | 100 | 100 | 100 | 0,09 | 0,09 |

Horizontal deformation #1 Horizontal deformation #2



Indirect Tensile Modulus Test

Test method: ASTM D4123-82 / AASHTO TP31 (horiz. lvdts only, assumed Poisson's ratio)
Data fileName: C:\IPCglobal UTS\003 IT Modulus Test\CP03- A40M100.D003
Template file name: C:\IPCglobal UTS\003 IT Modulus Test\Templates\Default.P003
Test date & time: 13/05/2013 16:39:51
Project:
Operator: Luiz_Leticia_Eduardo
Comments: CP03-A40M100

Setup Parameters

Target temperature (°C): 25
Loading pulse width (ms): 100
Pulse repetition period (ms): 1000
Conditioning pulse count: 5

Peak loading force (N): 1000
Estimated Poisson's ratio: 0.3

Seating force: AASHTO TP31 (10% of peak)

Specimen Information

Identification:
Remarks...

| Dimensions | Point 1 | Point 2 | Point 3 | Point 4 | Point 5 | Point 6 | Average | Std Dev |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Length (mm) | 61,1 | 61,3 | 61,1 | 61,2 | | | 61,2 | 0,1 |
| Diameter (mm) | 101,7 | 101,8 | 101,8 | 101,8 | | | 101,8 | 0,1 |

Cross-sectional area (mm²): 8133,7

Test Results

Conditioning pulses: 5
Core temperature (°C): 29,4
Skin temperature (°C): 29,4

Perm't horiz'l def'n/pulse (µm): 1,130000

| | Pulse 1 | Pulse 2 | Pulse 3 | Pulse 4 | Pulse 5 | Mean | Std. Dev. | %CV |
|---------------------------------------|---------|---------|---------|---------|---------|------|-----------|------|
| Resilient modulus (MPa) | 4504 | 4295 | 4297 | 4246 | 4187 | 4306 | 107,10 | 2,49 |
| Total recoverable horiz. deform. (µm) | 2,07 | 2,17 | 2,17 | 2,20 | 2,23 | 2,17 | 0,05 | 2,43 |
| Peak loading force (N) | 1001 | 1002 | 1001 | 1001 | 1001 | 1001 | 0,34 | 0,03 |
| Recoverable horiz. deform. #1 (µm) | 0,94 | 0,96 | 0,98 | 0,99 | 0,99 | 0,97 | 0,02 | 2,18 |
| Recoverable horiz. deform. #2 (µm) | 1,13 | 1,22 | 1,19 | 1,20 | 1,24 | 1,20 | 0,04 | 2,94 |
| Seating force (N) | 100 | 100 | 100 | 100 | 100 | 100 | 0,16 | 0,16 |

Horizontal deformation #1 Horizontal deformation #2

