Condensation Resistance Task Group

March 20, 2018

Agenda

- Understanding CI

- Ballot responses summary

- CI Analysis

- CI TG Task List

- Next Steps

Understanding CI

How the CI Value can have a useful need to the consumer, much like the U-factor, SHG

The below table derived from Equation 2 from Hakim Elhmady's paper titled,
"A Universal approach to laboratory assessment of the condensation potential of windows"

					Winter Design Temperture, Td					
	*Dew Point	30	20	10	0	-10	-20	-30	-40	-50
RH%	Temp, Ts				Condensation Index, CI					
10	10.8	----	----	1	15	26	34	41	46	51
15	20.1	----	----	17	29	38	45	50	55	59
20	26.9	----	14	28	39	46	52	57	61	64
25	32.4	6	25	37	46	53	58	63	66	69
30	37	18	34	45	53	59	63	67	70	73
35	40.9	27	42	52	59	64	68	71	74	76
40	44.4	36	49	58	64	68	72	75	77	79
45	47.5	44	55	63	68	72	75	78	80	81
50	50.3	51	61	67	72	76	78	80	82	84
55	52.9	58	66	72	76	79	81	83	85	86
60	55.3	64	71	76	79	82	84	85	87	88
65	57.5	69	75	79	82	85	86	88	89	90
70	59.6	74	80	83	85	87	89	90	91	91
75	61.5	79	83	86	88	90	91	92	92	93
80	63.3	84	87	89	91	92	93	93	94	95

*Dew point calculated based on NFRC indoor air temp of: 69.8 F, Ti

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Ballot Responses

NFRC 500 Ballot Results

- Approve – 18

- Abstain – 11

- Negatives – 8

NFRC 501 Ballot Results

- Approve – 18

- Abstain – 11

- Negatives – 8

Categorization

Simulation Procedure

- Clarification (NP)

Calculation

- Calculation (PS)
- TC placement (PS)

Product Type

- Slope assemblies (PS)

Harmonization / Research

- Humidity (PS)
- Research (PS)

CI Analysis

- [Instructions](#) to perform your own CI analysis on webpage

Task List

Fill the sheet

- Define research criteria
  - Frame location points
  - Edge location points (5% or fixed)
  - Baker / Thoman work
- Other items

Next steps - WG

- Schedule next call

- Form WG for location point research

- Form 501-UG WG