

**Test Group:** Various [See specifics below]

**Temperature:** 37deg. F (From the fridge) to 154deg. F (Warmed on the stove over Med. heat)

**Testing Medium:** ColorpHast pH Test Strips (German Made) Non-Bleeding

**Testing Medium Type:** Narrow Range [NR] 4.0 to 7.0 / Universal [U] 0.0 to 14.0

**Purchase URL:** <http://www.sanitationtools.com/Products.asp?Product=1391&Category=72>

**\*\*NOTE:** I got taken... They're cheaper on Amazon (\$14 versus \$20) but they do not have the NR

**Contact Time [All samples]:** 10 Seconds

**Color Development Window [iPhone Stop watch]:** 2 Min.

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### Test 1

**SAMPLE:** Dark Wort [finished]

**SAMPLE CONDITIONS:** Saved from previous brew day (Refrigerated)

**MANUFACTURER:** Home Brew

**STYLE:** American Brown Ale [AG]

**SRM:** 22.15 (Calculated – BeerTools)

**WATER:** RO (Built up using AJ's "Primer" advice)

\*Not Adjusted – SLIGHT color variant

\*\*Slightly darker than the "5" color reference – leaning towards slightly higher pH

DEVIATION 1	MEDIUM	RESULT	DEVIATION 2	MEDIUM	RESULT
37° F	NR	5.3*	37° F	U	5**
DEVIATION 3	MEDIUM	RESULT	DEVIATION 4	MEDIUM	RESULT
72° F	NR	5.3*	72° F	U	5**
DEVIATION 5	MEDIUM	RESULT	DEVIATION 6	MEDIUM	RESULT
154° F	NR	5.3*	154° F	U	5**

**NOTES:** The NR (Narrow Range) slight color variant was so nominal that a +/- swing of 0.1 is negligible at best; at least for my applications. Also, the 37° F temp was derived from my refrigerator temp; this was not an actual reading. The 72° F and the 154° F were actual thermometer readings (Typical digital probe type).

## Test 2

**SAMPLE:** Light Wort [finished]

**SAMPLE CONDITIONS:** Saved from previous brew day (Refrigerated)

**MANUFACTURER:** Home Brew

**STYLE:** Light Hybrid Beer (Blonde Ale) [Partial Mash]

**SRM:** 2.13 (Calculated – BeerTools)

**WATER:** RO (Built up using AJ's "Primer" advice)

\*Not Adjusted – SLIGHT color variant

\*\*almost dead on with the "5" color reference (**MAYBE** 5.1 at most)

DEVIATION 1	MEDIUM	RESULT	DEVIATION 2	MEDIUM	RESULT
37° F	NR	5.0*	37° F	U	5**

  

DEVIATION 3	MEDIUM	RESULT	DEVIATION 4	MEDIUM	RESULT
72° F	NR	5.0*	72° F	U	5**

  

DEVIATION 5	MEDIUM	RESULT	DEVIATION 6	MEDIUM	RESULT
154° F	NR	5.0*	154° F	U	5**

**NOTES:** In addition to the notes above, this wort was brewed with the addition of lemon and lime peels (5 each) which may have contributed to the lower pH and the fact that roughly 50% of my fermentables were DME (Which has all the influential goodies from the manufacturer).

## Test 3

**SAMPLE:** Finished Beer

**SAMPLE CONDITIONS:** Batch Primed / Packaged / Bottled for 3 weeks @ 74° F then chilled

**MANUFACTURER:** Home Brew

**STYLE:** Light Hybrid Beer (Blonde Ale) [Partial Mash]

**SRM:** 2.13 (Calculated – BeerTools)

**WATER:** RO (Built up using AJ's "Primer" advice)

\*Not Adjusted – Noticeable color variant – leaning towards the lighter (4.4) color reference

\*\*Color was half way between the "4" and "5" color reference – leaning towards lower pH

DEVIATION 1	MEDIUM	RESULT	DEVIATION 2	MEDIUM	RESULT
37° F	NR	4.4 to 4.7*	37° F	U	4 to 5**

  

DEVIATION 3	MEDIUM	RESULT	DEVIATION 4	MEDIUM	RESULT
72° F	NR	4.4 to 4.7*	72° F	U	4 to 5**

  

DEVIATION 5	MEDIUM	RESULT	DEVIATION 6	MEDIUM	RESULT
154° F	NR	4.4 to 4.7*	154° F	U	4 to 5**

**NOTES:** The NR (Narrow Range) color variant was halfway between 4.4 and 4.7; for my applications that's good enough. The U (Universal) range put me right in line with the NR leading me to believe the two separate medium's accuracy.

#### Test 4

**SAMPLE:** Finished Beer

**SAMPLE CONDITIONS:** Purchased from local supermarket (Chilled case) then chilled @ home

**MANUFACTURER:** Full Sail Brewery, Hood River, OR – Session Black Premium Dark Lager

**STYLE:** American-Style Dark Lager (Brewers Association)

**SRM:** 23 - 25 (Cited from various sources)

**WATER:** Unknown

\*Not Adjusted –Dead on with the 4.7 color reference [NR]... At least to my eye

\*\*Color slightly lighter than the “5” color reference – leaning towards lower pH

DEVIATION 1	MEDIUM	RESULT	DEVIATION 2	MEDIUM	RESULT
37° F	NR	4.7*	37° F	U	5**

DEVIATION 3	MEDIUM	RESULT	DEVIATION 4	MEDIUM	RESULT
72° F	NR	4.7*	72° F	U	5**

DEVIATION 5	MEDIUM	RESULT	DEVIATION 6	MEDIUM	RESULT
154° F	NR	4.7*	154° F	U	5**

**NOTES:** In addition to the observations / conditions above this Dark Lager is pretty tasty. Ha! I’m about 3 beers in right now... All in the name of science right!?! Whew – I’m a light weight.....

#### Test 5

**SAMPLE:** Water (RO / Tap / Spring)

**SAMPLE CONDITIONS:** RO was purchased from vend-o-matic / Spring was bottled

**MANUFACTURER:** Generic / Aquafina / Tap is West Richland, WA – Yuck!

**STYLE:** It’s just water dude....

**SRM:** 0

**NOTES, OBSERVATIONS, & RESULTS:** As suspected, after my applicability / feasibility / accuracy tests I began trusting the strips. The RO was roughly neutral at a solid 7.0 on both strips (NR) and (U). The Spring water was higher at a fairly solid 8.0 (Though slight color variant leading towards higher pH was determined) and the tap water was in the same range as the spring but our water tastes awful...Not even an option.

**OVERALL OBSERVATION:** The test strips work for my applications at all temp ranges because of their ability to equilibrate almost instantly (cool / warm to ambient temp). I know some out there want dead-nuts digital accuracy but with the low cost, low maintenance, fairly accurate results; not to mention the fact, I’m a home brewer who just wants to brew better / tastier beers...I’m sold. Granted, I will use a different retailer to get them cheaper but as long as they are the plastic German made ColorpHast non-bleeding strips you should be good to go. On a side note I actually did one more test sample but at that point I was a sixer in and all scientific practices went out the window. I packed up the “experiment” and fired up the grill.... In the end, as always, it’s up to you where and how you determine your pH. For me? I will use the strips. Cheers and many thanks again guys! Brew On!