

Style: 13A. Dark Mild

Brewer: Beer-N-BBQ by Larry
Brew Date:

Brew System: 4.5 Gal Kettle, Extract w/Grains
Chiller: JaDeD Scylla
Fermenter(s): FermZilla All-Rounder 30L

Grain Bill, Adjuncts, & Sugars		
Type	Qty	% of Bill
	lb	
DME: Muntons Spraymalt Amber	3.00	52.2%
DME: Muntons Spraymalt Light	1.25	21.7%
Caramel Malt: Caramel Malt 80L (Briess)	0.50	8.7%
Roasted Malt: Crisp Pale Chocolate Malt	0.50	8.7%
Biscuit Malt: Victory® Malt (Briess)	0.50	8.7%

Recipe Outputs		BJCP Guide	
	Design	Actual	Min
			Max
Extract Eff.:	70.0%	88.2%	
Brewhouse Eff.:	86.8%	88.2%	
O.G.:	1.034	1.035	1.030
F.G.:	1.007	1.009	1.008
Ferm Vol:	22.0	22.0	
Batch Vol:	20.0		
App Atten:	79.0%	75.3%	
IBUs:	17	#VALUE!	10
ABV:	3.5%	3.4%	3.0%
SRM:	16	#VALUE!	12
Calories per US Pint:	153		

Water Information		
Distilled Water		
ppm (mg/L)	Orig.	Adj.
Calcium	0	0
Magnesium	0	0
Sodium	0	0
Chloride	0	0
Sulfate	0	0
Alkalinity	0	
Cl/SO ₄ Ratio		

Total Water Required										
Design	27.1	qt	60.0	°F	Actual		qt		°F	
Mash Schedule & Water Infusions										
Step #	Schedule		Strike Water (Preheated Tun)				Mash		Mash pH	
	Temp °F	Time min	Design qt	°F	Actual qt	°F	°F	Design	Actual	
1	153	30	4.0	159	4.0			0.0		
2										
3										
4										
5										

Hop Bill & Schedule					
Species	Type	Alpha (%)	Qty oz	AAU	Time (min)
Kent Golding (U.K.)	Pellet	5.9	0.75	4.4	60
Kent Golding (U.K.)	Pellet	5.9	0.25	1.5	0



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Water Additions (grams)		
	Mash	Sparge
Gypsum	0.0	0.0
Cal Chloride	0.0	0.0
Epson Salt	0.0	0.0
Slaked Lime	0.0	0.0
Baking Soda	0.0	0.0
Chalk	0.0	0.0
Lactic Acid	0	mL

Yeast Information	
Fermentis	
SafAle S-04	
Ferm Temp:	59-68 °F

Forced Carbonation		
CO2 Volume	2.0	
Temperature	38.0	°F
Pressure	6.0	PSI

Lautering Process (Wort Separation)						
		Design		Actual		Corrected
		qt	°F	qt	°F	qt
NA	Sparge Water Req'd	23.6	153.0	10.0		153.0
	-	-	-			
	-	-	-			
	-	-	-			
	Wort Collected	25.8	153.0			153.0
Grains Only Contribution	Grain Absorb Rate	0.35	qt/lb		qt/lb	
	S.G. Hydrometer	1.006			°F	
	Refractometer	1.5	° Brix		° Brix	
	Mash Extract Efficiency	70%			Hydrometer	
					Refractometer	

Boil Process						
		Design		Actual		Corrected
		qt	min	qt	min	qt
Boil	Start Volume	26.4				
	Time	60	min		min	
	End Volume (w/ IC)	25.4	qt		qt	
	Boil off Rate	3.0	qt/hr		qt/hr	
Post Boil	Chilled Volume	22.5	qt		qt	0.0
		75	°F		°F	75
O.G.	Hydrometer	1.034		1.035	68.0	°F
	Refractometer	8.6			° Brix	

Fermentation & Clarification						
		Design		Actual		Corrected
		qt	°F	qt	°F	qt
	Into Fermenter	22.0	75.0	22.0	65.0	
	Into Bright Tank or Aging Vessel					
F.G.	Hydrometer	1.007		1.009	68.0	°F
	Refractometer	1.8	° Brix		° Brix	
	Packaged Beer	20.0	qt		qt	

NOTES:

- Partial Mashing: Steep the grains within a grain bag in the kettle per mash schedule. Remove grain bag.
- Concentrated Wort Boil: Add enough water (~ 2 gal) to kettle to leave at least a couple inches of head space. Bring to a boil. Turn off heat. Add malt extract. Stir in before turning on heat, and boil for time indicated.
- Chill: Use recirculating wort chiller method, or move kettle outside in Winter to cool if possible. Temperature only need to be under ~100 deg F if using refrigerated water for the next step.
- Top Up: Add remaining chilled water to fermenter. Add chilled wort to fermenter. Mix well.
- Add yeast.
- Attach blow off hose if required.
- Brew Day Notes: Steeped grain in 1 gal filtered tap water, added 2.5 gal distilled water to boil. Added 1.5 cold distilled water to fermenter. Ended up with 5.25 gal. Topped up with .25 gal more tap water for 5.5 gal in fermenter @64 F.