

Dads Christmas Miller lite - high gravity double batch



American Light Lager
Recipe by **Richard Frame**

Batch Size	Losses	Boil Time	Mash Efficiency	Mash Volume	Sparge Volume
5.5 US Gal	0.53 US Gal	60 mins	80%	5.941 US Gal	2.105 US Gal
OG (SG)	FG (SG)	IBU	Colour (EBC)	ABV	
1.075	1.014	17.2	8.3	8.06%	

Mash and Sparge volumes calculated using the "Grainfather G30 Connect (USA) - 110V (Bluetooth)" profile.

Fermentables

	Amount	Usage	PPG	EBC
Pilsner	13.00 lb (84%)	Mash	37.8	3.4
Corn, Flaked	2.00 lb (13%)	Mash	36.8	2.6
Rice Hulls	0.50 lb (3%)	Mash	0.0	0.0

Mash Steps

	Temp	Time
Mash Step 1	148 °F	60 min
Mash Out	165 °F	10 min

Hops

	Amount	Type	Usage	Time	AA
Hallertau (IBU: 6.0)	0.50 oz (25%)	Pellet	Boil	60 min	4.5
Hallertau (IBU: 4.9)	0.50 oz (25%)	Pellet	Boil	30 min	4.5
Hallertau (IBU: 6.3)	1.00 oz (50%)	Pellet	Boil	10 min	4.5

Yeast

Amount Attenuation

LALBREW® VOSS KVEIK ALE YEAST

2 packets

75 %

Extras	Amount	Usage	Time
Sodium Bicarbonate(Baking soda)	0.7 each	Mash Water Addition	0 min
Calcium Chloride	0.66 each	Mash Water Addition	0 min
Calcium Sulphate (Gypsum)	0.63 each	Mash Water Addition	0 min
Magnesium Sulphate (Epsom Salt)	1.49 each	Mash Water Addition	0 min
Lactic Acid 88%	0.4 oz	Mash	0 min
Magnesium Sulphate (Epsom Salt)	1.77 each	Sparge Water Addition	0 min
Sodium Bicarbonate(Baking soda)	0.83 each	Sparge Water Addition	0 min
Calcium Chloride	0.78 each	Sparge Water Addition	0 min
Calcium Sulphate (Gypsum)	0.75 each	Sparge Water Addition	0 min
Fermax Yeast Nutrient	2 tsp	Boil	10 min
Whirlfloc	1 each	Boil	15 min
Gelatin	2 tsp	Secondary	0 days

Fermentation Steps	Temp	Time
Fermentation Step 1	100 °F	3 days
Cold crash	35 °F	2 days
Gelatin rest	35 °F	2 days

Notes

5.5 gallon converted to 10.5 gallon
Check PH middle of mash
Check gravity end of mash, use calculator to convert amount of water to add.

Using all salts in mash, adding untreated distilled at the end to dilute to 10.5