

## Dual APA

### Selected Style and BJCP Guidelines

10A–American Ale–American Pale Ale

Minimum OG:	1.045 SG	Maximum OG:	1.060 SG
Minimum FG:	1.010 SG	Maximum FG:	1.015 SG
Minimum IBU:	30 IBU	Maximum IBU:	45 IBU
Minimum Color:	9.9 EBC	Maximum Color:	27.6 EBC

### Recipe Overview

Wort Volume Before Boil:	54.00 l	Wort Volume After Boil:	48.00 l
Volume Transferred:	46.00 l	Water Added To Fermenter:	0.00 l
Volume At Pitching:	46.00 l	Volume Of Finished Beer:	45.00 l
Expected Pre-Boil Gravity:	1.046 SG	Expected OG:	1.052 SG
Expected FG:	1.012 SG	Apparent Attenuation:	75.9 %
Expected ABV:	5.3 %	Expected ABW:	4.1 %
Expected IBU (using Tinseth):	0.0 IBU	Expected Color (using Morey):	10.1 EBC
BU:GU ratio:	0.00	Approx Color:	
Mash Efficiency:	70.0 %		
Boil Duration:	90.0 mins		
Fermentation Temperature:	18 degC		

### Fermentables

Ingredient	Amount	%	MCU	When
German Pale Ale Malt	10.00 kg	91.7 %	3.1	In Mash/Steeped
German Caramel Pils	0.600 kg	5.5 %	0.2	In Mash/Steeped
UK Dark Crystal	0.200 kg	1.8 %	2.7	In Mash/Steeped
German Wheat Malt	0.100 kg	0.9 %	0.0	In Mash/Steeped

### Hops

Variety	Alpha	Amount	IBU	Form	When
---------	-------	--------	-----	------	------

### Other Ingredients

Ingredient	Amount	When
------------	--------	------

### Yeast

White Labs WLP060–American Ale Blend

### Water Profile

Target Profile:	No Water Profile Chosen
Mash pH:	5.2
pH Adjusted with:	Unadjusted

Total Calcium (ppm):	36	Total Magnesium (ppm):	14
----------------------	----	------------------------	----

Total Sodium (ppm):	20	Total Sulfate (ppm):	37
Total Chloride(ppm):	40	Total Bicarbonate (ppm):	106

### Mash Schedule

Mash Type:	Full Mash
Schedule Name:	Single Step Infusion (67C/152F)

Step Type	Temperature	Duration
Rest at	67 degC	60

### Recipe Notes

--