

# Double Quad IPA

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Category: 14 - India Pale Ale (IPA)

Subcategory: C - Imperial IPA



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Kettle Volume: 13.42 gal (S.G.: 1.145)

Boil Duration: 120.0 min

Evaporation: 3.0 gal

Water Volume Added: 0.0 gal

Final Volume: 10.0 gal (S.G.: 1.194)

Efficiency: 85.0%

Attenuation: 76.0%

Evap/Hour: 1.5 gal

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## Ingredients:

32.0 lb American 2-row

2.0 lb Amber Malt

24.0 lb Corn Sugar

0.075 oz Amarillo (8.5%) - added during boil, boiled 120 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 117 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 114 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 111 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 108 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 105 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 102 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 99 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 96 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 93 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 90 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 87 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 84 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 81 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 78 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 75 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 72 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 69 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 66 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 63 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 60 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 57 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 54 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 51 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 48 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 45 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 42 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 39 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 36 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 33 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 30 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 27 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 24 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 21 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 18 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 15 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 12 min  
0.075 oz Amarillo (8.5%) - added during boil, boiled 9 min



0.075 oz Warrior (16.0%) - added during boil, boiled 72.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 69.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 66.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 63.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 60.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 57.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 54.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 51.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 48.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 45.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 42.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 39.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 36.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 33.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 30.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 27.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 24.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 21.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 18.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 15.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 12.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 9.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 6.0 min  
 0.075 oz Warrior (16.0%) - added during boil, boiled 3.0 min  
 3.0 oz Nugget (13.0%) - steeped after boil  
 1.0 oz Glacier (5.5%) - added dry to secondary fermenter  
 1.0 oz Simcoe (13.0%) - added dry to secondary fermenter  
 1.0 oz Palisade (9.0%) - added dry to secondary fermenter  
 2.0 ea White Labs WLP001 California Ale  
 3.0 ea White Labs WLP099 Super High Gravity Ale

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**Style:**

Recipe	Guideline	
Original Gravity: 1.194	1.070 - 1.090	
Terminal Gravity: 1.047	1.010 - 1.020	
Color: 11.79 °SRM	8.0 - 15.0	
Alcohol: 20.38%	7.5% - 10.0%	
Bitterness: 176.4	60.0 - 120.0	

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**Analysis:**

Apparent	Real	Weight	Calories
Original Extract: 42.97 °P	42.97 °P	Alcohol: 57.41 g	396.16 kcal
Attenuation: 76.0%	57.9%	Carbs: 66.9 g	254.22 kcal
Terminal Extract: 11.58 °P	18.11 °P	Protein: 4.68 g	18.73 kcal
% Alcohol: 20.38% ABV	15.46% ABW		Total: 669.12 kcal

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**Schedule:**

Ambient Air: 70.0 °F  
 Source Water: 60.0 °F  
 Elevation: 0.0 m

00:20:52 Dough-In  
 Liquor: 10.62 gal  
 Strike: 150.75 °F  
 Target: 140.0 °F

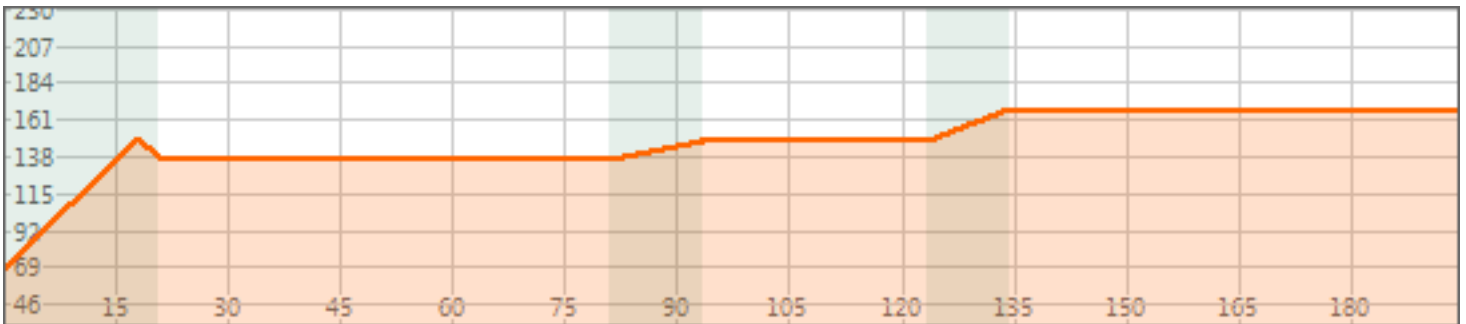
01:20:52 Rest #1  
 Rest: 60.0 min  
 Final: 138.1 °F

01:33:25 HERMS  
 Heat: 12.5 min  
 Target: 150.0 °F

02:03:25 Rest #2  
 Rest: 30.0 min  
 Final: 148.9 °F

02:14:23 Mash-Out  
 Heat: 11.0 min  
 Target: 170.0 °F

03:14:23 Sparge  
 Untitled Sparge  
 Volume: 3.28 gal  
 Temperature: 168.0 °F  
 Duration: 60.0 min  
 Total Runoff: 14.0 gal



### Carbonation:

#### Natural Conditioning

Beer Temp: 68.0 °F  
 Priming Agent Rate: 4.02 g/L  
 Priming Agent Mass: 249.34 g  
 Volumes CO<sub>2</sub>: 2.5

#### Forced Carbonation

Beer Temp: 45.0 °F  
 Pressure: 14.89 PSI  
 Volumes CO<sub>2</sub>: 2.5

### Notes:

- \* Amarillo, Warrior, and Simco pellets will be continuously hopped for 120 mins
- \* Following boil, pour ~2-3 liters of wort into 5 liter flask. Mix with water to drop sg ro 1.040. Drop to 70 degrees and pitch WLP099 for second starter
- \* Chill through hopback with nugget hops to 65-68 degrees F
- \* Pitch decanted WLP001 start into beer
- \* Store at 68 degrees F for 2 days or when fermentation becomes active
- \* Add 10-12 ounce of dextrose every morning and evening. For evening additions add nutrients and oxygenate for 30-45 seconds
- \* No later than day 5, pitch all of 5 liter WLP099 starter
- \* Continue adding sugar up to 2 weeks or until fermentation slows