

Apollo

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **52**
- SRM **6.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.2 liter(s)**
- Total mash volume **21.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **16.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **0 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3 kg (55.6%)	85 %	7
Grain	BESTMALZ - Best Pilsen	2 kg (37%)	80.5 %	4
Grain	Caramel/Crystal Malt - 40L	0.4 kg (7.4%)	74 %	79

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Apollo	30 g	60 min	17 %
Aroma (end of boil)	Apollo	75 g	0 min	17 %

Yeasts

Name	Type	Form	Amount	Laboratory
US West Coast	Ale	Dry	11 g	Danstar

Extras

Type	Name	Amount	Use for	Time
Fining	Irish moss	4 g	Boil	5 min