

# Hop Madness

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **38**
- SRM **13.2**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **24 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (62.5%)	80 %	5
Grain	Pilzński	2 kg (25%)	81 %	4
Grain	Strzegom Karmel 150	1 kg (12.5%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	11 %
Boil	Citra	15 g	30 min	12 %
Boil	Amarillo	15 g	30 min	9.5 %
Aroma (end of boil)	Ahtanum	30 g	0 min	5 %
Aroma (end of boil)	Citra	15 g	0 min	12 %
Aroma (end of boil)	Amarillo	15 g	0 min	9.5 %
Dry Hop	Citra	30 g	7 day(s)	12 %
Dry Hop	Amarillo	30 g	7 day(s)	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Slant	200 ml	Fermentis
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