

# HopHands

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **24**
- SRM **4.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3.85 kg (81.9%)	80 %	7
Grain	Platki owsiane	0.85 kg (18.1%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Columbus/Tomahawk/Zeus	8 g	60 min	15.5 %
Aroma (end of boil)	Amarillo	14 g	5 min	9.5 %
Aroma (end of boil)	Centennial	14 g	5 min	10.5 %
Aroma (end of boil)	Simcoe	14 g	5 min	13.2 %
Whirlpool	Amarillo	21 g	20 min	9.5 %
Whirlpool	Centennial	21 g	20 min	10.5 %
Whirlpool	Simcoe	21 g	20 min	13.2 %
Dry Hop	Amarillo	57 g	5 day(s)	9.5 %
Dry Hop	Centennial	57 g	5 day(s)	10.5 %
Dry Hop	Simcoe	57 g	5 day(s)	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - London Ale III	Ale	Liquid	1000 ml	Wyeast Labs

## Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	1 g	Boil	15 min
Other	Yeast Nutrient	3 g	Boil	15 min

## Notes

- zamień mosaic na simcoe  
*Sep 7, 2017, 7:09 PM*