

# Hop Kop

- Gravity **13.7 BLG**
- ABV ---
- IBU **57**
- SRM **8.2**
- Style **American Wheat or Rye Beer**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **15 %**
- Size with trub loss **28.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **33.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **55 C**, Time **15 min**
- Temp **62 C**, Time **70 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **70 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **20.8 liter(s)** of **76C** water or to achieve **33.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pale Ale Belgijski	4.5 kg (69.2%)	80 %	8
Grain	Płatki Ryżowe	0.5 kg (7.7%)	70 %	0
Grain	Bestmalz Red X	1 kg (15.4%)	79 %	30
Grain	Słód Diastatyczny	0.5 kg (7.7%)	80 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	12.5 %
Aroma (end of boil)	Sorachi Ace	20 g	30 min	12.5 %
Aroma (end of boil)	Waimea	15 g	30 min	17.4 %
Aroma (end of boil)	Sorachi Ace	10 g	15 min	12.5 %
Aroma (end of boil)	Waimea	10 g	15 min	17.4 %
Aroma (end of boil)	Waim	5 g	5 min	17.4 %
Whirlpool	Sorachi Ace	20 g	0 min	12.5 %
Dry Hop	Simcoe	10 g	10 day(s)	11.4 %

Dry Hop	Waimea	20 g	14 day(s)	17.4 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	11.5 g	Mangrove Jack's

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	20 g	Mash	140 min