

# Hiro academi

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- Gravity **15.2 BLG**
- ABV ---
- IBU **117**
- SRM **4.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27 liter(s)**
- Total mash volume **36 liter(s)**

## Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **27 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **20 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	2.5 kg (27.8%)	85 %	4
Grain	Viking Pale Ale malt	6.5 kg (72.2%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Columbus/Tomahawk/Zeus	15 g	20 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	25 g	30 min	15.5 %
Boil	Simcoe	20 g	30 min	13.2 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	5 g	30 min	15.5 %
Aroma (end of boil)	Citra	50 g	30 min	12 %
Aroma (end of boil)	Mosaic	50 g	30 min	10 %
Aroma (end of boil)	Simcoe	20 g	30 min	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	23 g	Ferments