

# HIPA #1

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **41**
- SRM **7.1**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **0 %**
- Size with trub loss **15.4 liter(s)**
- Boil time **45 min**
- Evaporation rate **12 %/h**
- Boil size **19.3 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

## Mash step by step

- Heat up **12.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **10.7 liter(s)** of **76C** water or to achieve **19.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	3.3 kg (76.7%)	74.84 %	13
Grain	Oats, Flaked	0.5 kg (11.6%)	80 %	4
Grain	Wheat, Flaked	0.5 kg (11.6%)	77 %	7

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	10 g	25 min	9.2 %
Boil	Cascade	10 g	25 min	5.5 %
Boil	Citra	10 g	25 min	12 %
Boil	Mosaic (HBC 369)	10 g	25 min	12.25 %
Boil	Amarillo	10 g	10 min	9.2 %
Boil	Mosaic (HBC 369)	15 g	0 min	12.25 %
Boil	Amarillo	10 g	0 min	9.2 %
Boil	Cascade	10 g	0 min	5.5 %
Boil	Citra	10 g	0 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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FM55 Zielone wzgórze	Ale	Liquid	500 ml	Fermentum mobile
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### Extras

Type	Name	Amount	Use for	Time
Water Agent	Siarczan Magnezu (MgSO4)	5.23 g	Mash	60 min
Water Agent	Phosphoric Acid 85%	3 g	Mash	60 min
Water Agent	Gips (Calcium Sulfate)	2.3 g	Mash	60 min
Water Agent	Sól	0.28 g	Mash	60 min
Water Agent	Siarczan Magnezu (MgSO4)	4.78 g	Mash	60 min
Water Agent	Gips (Calcium Sulfate)	2.1 g	Mash	60 min
Water Agent	Sól	0.26 g	Mash	60 min