

# Rathar

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **11**
- SRM **4.3**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **3 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24.2 liter(s)**
- Total mash volume **31.1 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **24.2 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **40 min** at **72C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4.8 kg (69.6%)	82 %	4
Grain	Płatki pszeniczne	0.9 kg (13%)	75 %	3
Grain	Płatki owsiane	0.9 kg (13%)	75 %	3
Grain	Dekstrynowy	0.3 kg (4.3%)	80 %	13

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Citra	20 g	5 min	13.5 %
Aroma (end of boil)	Mosaic	25 g	5 min	12 %
Whirlpool	Citra	20 g	0 min	13.5 %
Whirlpool	Mosaic	25 g	0 min	12 %
Dry Hop	Citra	50 g	3 day(s)	13.5 %
Dry Hop	Amarillo	50 g	2 day(s)	8.8 %
Dry Hop	Galaxy	50 g	1 day(s)	14.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Vermont Ale	Ale	Slant	75 ml	Yeast Bay

FM54 Gorączka kalifornijska	Ale	Slant	75 ml	Fermentum Mobile
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