

## No to HOP!

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- Gravity **14.3 BLG**
- ABV ---
- IBU **85**
- SRM **9.4**
- Style **Rye IPA**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

### Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **19.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pale Ale	4.5 kg (69.2%)	80.5 %	6
Grain	Słód Żytni	1.5 kg (23.1%)	81.2 %	8
Grain	Słód Karmelowy	0.5 kg (7.7%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	20 g	60 min	14.7 %
Boil	Mosaic	35 g	15 min	12 %
Boil	Mosaic	40 g	10 min	12 %
Boil	Cascade	35 g	10 min	7.7 %
Boil	Sorachi Ace	38 g	5 min	12.5 %
Boil	Zythos	40 g	5 min	9.2 %
Dry Hop	Cascade	50 g	12 day(s)	7.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis