

## IPA#4

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **50**
- SRM **9.4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **3 %**
- Size with trub loss **20.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **25 liter(s)**

### Steps

- Temp **64 C**, Time **90 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **18.2 liter(s)** of strike water to **72.2C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **1 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **24.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) Bel	5 kg (74.1%)	80 %	6
Grain	Wheat, Flaked	1 kg (14.8%)	77 %	4
Grain	Carawheat (GR)	0.75 kg (11.1%)	68 %	79

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	12 g	60 min	13.2 %
Boil	Simcoe	10 g	40 min	13.2 %
Boil	Simcoe	10 g	20 min	13.2 %
Boil	Simcoe	10 g	5 min	13.2 %
Boil	Simcoe	10 g	0 min	13.2 %
Boil	Lemon drop	12 g	60 min	4.6 %
Boil	Lemon drop	10 g	40 min	4.6 %
Boil	Lemon drop	10 g	20 min	4.6 %
Boil	Lemon drop	10 g	5 min	4.6 %
Boil	Lemon drop	10 g	0 min	4.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	240 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Flavor	Zest pomarańcza	42 g	Boil	10 min
Flavor	Zest grejpfrut	50 g	Boil	10 min