

## Micro RYE IPA (hipcio)

- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **27**
- SRM **2.9**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **5.6 liter(s)**
- Trub loss **5 %**
- Size with trub loss **5.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **7.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **3.5 liter(s)**
- Total mash volume **4.5 liter(s)**

### Steps

- Temp **66 C**, Time **10 min**
- Temp **62 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **3.5 liter(s)** of strike water to **68.1C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **10 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **4.6 liter(s)** of **76C** water or to achieve **7.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	0.7 kg (69.3%)	81 %	4
Grain	Płatki owsiane	0.2 kg (19.8%)	85 %	3
Grain	Maris Otter	0.04 kg (4%)	81 %	6
Grain	Rye, Flaked	0.07 kg (6.9%)	78.3 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Hersbrucker	2 g	80 min	3 %
Boil	Nelson Sauvín	4.1 g	60 min	11 %
Aroma (end of boil)	Motueka	5.46 g	5 min	7 %
Whirlpool	Citra	5.46 g	0 min	7.1 %
Whirlpool	Nelson Sauvín	5.46 g	0 min	4.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	3.8 g	Mangrove Jack's