

## #48 Mikro Polish IPA

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **65**
- SRM **2.4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **14 %/h**
- Boil size **26.2 liter(s)**

### Mash information

- Mash efficiency **92 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **12.6 liter(s)**

### Steps

- Temp **64 C**, Time **35 min**
- Temp **72 C**, Time **15 min**

### Mash step by step

- Heat up **9.8 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **35 min** at **64C**
- Keep mash **15 min** at **72C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **26.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	2.4 kg (86%)	80.5 %	2
Grain	Caramel/Crystal Malt - 20L	0.112 kg (4%)	75 %	39
Grain	Wheat, Flaked	0.28 kg (10%)	60 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	44 g	60 min	11 %
Whirlpool	Książęcy	100 g	1 min	7 %
Whirlpool	EXP 03/20	70 g	1 min	9 %
Dry Hop	Książęcy	150 g	2 day(s)	7 %
Dry Hop	EXP 03/20	110 g	2 day(s)	8.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis