

## Rye IPA 15blg

- Gravity **15.5 BLG**
- ABV ---
- IBU **69**
- SRM **5.7**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **15 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **33.6 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **33.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	4 kg (66.7%)	80.5 %	2
Grain	Weyermann - Rye Malt	1.5 kg (25%)	85 %	7
Grain	Strzegom Karmel 30	0.5 kg (8.3%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	45 g	60 min	10 %
Boil	Citra	25 g	15 min	12 %
Boil	Cascade	30 g	10 min	6 %
Boil	Citra	25 g	5 min	12 %
Dry Hop	Citra	50 g	4 day(s)	12 %
Dry Hop	Amarillo	30 g	4 day(s)	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	20 ml	Fermentum Mobile