Rye IPA 15blg

- Gravity **15.9 BLG**
- ABV **---**
- IBU **63**
- SRM **8.2**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **15 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **33 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.1 liter(s)**
- Total mash volume **29.7 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 **23.1 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 **16.5 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg *(60.6%)*	80 %	4
Grain	Żytni	1 kg *(15.2%)*	85 %	8
Grain	Strzegom Karmel 30	0.5 kg *(7.6%)*	75 %	30
Grain	Strzegom Karmel 150	0.1 kg *(1.5%)*	75 %	150
Grain	Weyermann - Acidulated Malt	1 kg *(15.2%)*	80 %	6

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

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

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