

## RYE IPA #37

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- Gravity **15.4 BLG**
- ABV ---
- IBU **71**
- SRM **8.8**
- Style **Rye IPA**

### Batch size

- Expected quantity of finished beer **20.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.6 liter(s)**

### Mash information

- Mash efficiency **72.9 %**
- Liquor-to-grist ratio **3.25 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.3 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **5 min**

### Mash step by step

- Heat up **20.1 liter(s)** of strike water to **74.2C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **75C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Bestmalz - pilzniejszy	4.33 kg (70.1%)	80.5 %	4
Grain	Viking - Rye Malt	1.1 kg (17.8%)	81 %	8
Grain	Fawcett - Crystal	0.35 kg (5.7%)	73.5 %	160
Grain	Bestmalz - Carmel Pils	0.2 kg (3.2%)	75 %	5
Grain	Bestmalz - pszeniczny	0.2 kg (3.2%)	82 %	4.5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Topaz	8 g	60 min	15.5 %
Aroma (end of boil)	Citra	15 g	20 min	13.5 %
Aroma (end of boil)	Mosaic	15 g	20 min	12 %
Aroma (end of boil)	Cascade	15 g	20 min	7.7 %
Aroma (end of boil)	Citra	30 g	7 min	13.5 %
Aroma (end of boil)	Mosaic	30 g	7 min	12 %
Aroma (end of boil)	Cascade	30 g	7 min	7.7 %
Dry Hop	Mosaic	50 g	4 day(s)	12 %

Dry Hop	Cascade	50 g	4 day(s)	7.7 %
Dry Hop	Galaxy	30 g	4 day(s)	14.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	250 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	3 g	Boil	15 min
Water Agent	gips piwowarski	6.5 g	Mash	---
Water Agent	chlerek wapnia	3.43 g	Mash	---
Water Agent	kwas mlekowy 80%	3.32 g	Mash	---

### Notes

- chmiele na 20 i 7 min do whirlpoola w 98-77C  
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