

Jaryło

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **25**
- SRM **15.9**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **24 %/h**
- Boil size **22.8 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.6 liter(s)**

Steps

- Temp **44 C**, Time **20 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **79 C**, Time **0 min**

Mash step by step

- Heat up **15.4 liter(s)** of strike water to **47.2C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **79C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Rye Malt	2 kg (48.1%)	85 %	7
Grain	Strzegom Monachijski typ II	1 kg (24%)	79 %	22
Grain	Eraclea pilzneński Weyermann	0.9 kg (21.6%)	80.5 %	3.5
Grain	Caraaroma	0.2 kg (4.8%)	78 %	400
Grain	Weyermann - Carafa I	0.06 kg (1.4%)	70 %	900

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Spalter Select	8 g	50 min	6.3 %
Aroma (end of boil)	Spalter Select	42 g	15 min	6.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Fermentis SafAle™ WB-06	Wheat	Dry	11.5 g	Fermentis
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Extras

Type	Name	Amount	Use for	Time
Spice	Łuska ryżowa	200 g	Mash	60 min