

Red Rye Lager

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **16**
- SRM **13.7**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **19.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **1 min** at **78C**
- Sparge using **20.5 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński IREKS	4 kg (80.8%)	80 %	3
Grain	Monachijski IREKS	0.3 kg (6.1%)	80 %	20
Grain	Żytni Weyermann	0.5 kg (10.1%)	75 %	5
Grain	Carafa III special	0.15 kg (3%)	70 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	40 g	60 min	2.8 %
Boil	Tradition	30 g	15 min	2.8 %
Boil	Tradition	30 g	5 min	2.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
W34/70	Lager	Slant	100 ml	---