

# Red Rye Lager

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- 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 | ---        |