

# Zimna wojna - Red Ale

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- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **26**
- SRM **14.9**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **18.9 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **65C**
- Keep mash **1 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                                | Amount         | Yield | EBC  |
|-------|-------------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt                | 5 kg (79.2%)   | 80 %  | 5    |
| Grain | Strzegom Red Ale                    | 0.5 kg (7.9%)  | 75 %  | 70   |
| Grain | Carahell (R) 20-30 EBC Weyermann    | 0.2 kg (3.2%)  | 77 %  | 26   |
| Grain | Caraaroma (R) 300-400 EBC Weyermann | 0.15 kg (2.4%) | 78 %  | 400  |
| Grain | Karmelowy Czerwony 60               | 0.2 kg (3.2%)  | 75 %  | 59   |
| Grain | Strzegom Karmel 150                 | 0.2 kg (3.2%)  | 75 %  | 150  |
| Grain | Jęczmień palony 1100-1200           | 0.06 kg (1%)   | 55 %  | 1100 |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Perle   | 15 g   | 60 min | 5 %        |
| Boil    | Marynka | 10 g   | 60 min | 10 %       |
| Boil    | Perle   | 35 g   | 20 min | 5 %        |

|         |       |      |          |      |
|---------|-------|------|----------|------|
| Dry Hop | Citra | 25 g | 3 day(s) | 12 % |
|---------|-------|------|----------|------|

### Yeasts

| Name         | Type | Form   | Amount  | Laboratory |
|--------------|------|--------|---------|------------|
| Safale US-05 | Ale  | Liquid | 1000 ml | starter    |

### Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | Mech Irlandzki | 5 g    | Boil    | 10 min |