

## red ale

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **45**
- SRM **7.4**
- Style **Red IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **70 C**, Time **30 min**

### Mash step by step

- Heat up **17.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **70C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount        | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński        | 5 kg (87.7%)  | 80 %  | 4   |
| Grain | caramunich                 | 0.3 kg (5.3%) | --- % | --- |
| Grain | Carahell                   | 0.3 kg (5.3%) | 77 %  | 26  |
| Grain | Strzegom Czekoladowy jasny | 0.1 kg (1.8%) | 68 %  | 400 |

### Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Centennial | 30 g   | 60 min | 8.5 %      |
| Boil    | Amarillo   | 30 g   | 30 min | 7.1 %      |
| Boil    | Centennial | 10 g   | 5 min  | 8.5 %      |
| Boil    | Amarillo   | 10 g   | 0 min  | 7.1 %      |

### Yeasts

| Name                | Type | Form  | Amount | Laboratory |
|---------------------|------|-------|--------|------------|
| fermentum mobile 52 | Ale  | Slant | 200 ml | ---        |