

## Zwykły kierunek

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **36**
- SRM **35.4**
- Style **Foreign Extra Stout**

### 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 **15 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **20.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Weyermann - Pilsner Malt | 5 kg (73.5%)   | 81 %  | 5   |
| Grain | Bestmalz Red X           | 1 kg (14.7%)   | 79 %  | 30  |
| Grain | Jęczmień palony          | 0.8 kg (11.8%) | 55 %  | 985 |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Simcoe  | 25 g   | 60 min | 12.4 %     |
| Boil    | Fuggles | 60 g   | 10 min | 4.1 %      |

### Yeasts

| Name                          | Type | Form  | Amount | Laboratory |
|-------------------------------|------|-------|--------|------------|
| WLP001 - California Ale Yeast | Ale  | Slant | 200 ml | White Labs |