

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **41**
- SRM **5.1**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **29.3 liter(s)**

### Mash information

- Mash efficiency **74 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18.5 liter(s)**

### Steps

- Temp **68 C**, Time **30 min**
- Temp **73 C**, Time **30 min**

### Mash step by step

- Heat up **13.5 liter(s)** of strike water to **76.9C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **30 min** at **73C**
- Sparge using **20.8 liter(s)** of **76C** water or to achieve **29.3 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount     | Yield | EBC |
|-------|----------------------------|------------|-------|-----|
| Grain | Viking Pilsner malt        | 3 kg (60%) | 82 %  | 4   |
| Grain | Strzegom Monachijski typ I | 2 kg (40%) | 79 %  | 16  |

### Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Marynka           | 30 g   | 60 min | 10 %       |
| Boil                | Marynka           | 20 g   | 10 min | 10 %       |
| Aroma (end of boil) | Lublin (Lubelski) | 200 g  | 1 min  | 4 %        |

### Yeasts

| Name         | Type | Form | Amount | Laboratory   |
|--------------|------|------|--------|--------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Bezposrednio |