

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **41**
- SRM **16.3**
- Style **Extra Special/Strong Bitter (English Pale 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 **3.3 liter(s) / kg**
- Mash size **21.8 liter(s)**
- Total mash volume **28.4 liter(s)**

### Steps

- Temp **67 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **21.8 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **30 min** at **67C**
- Keep mash **30 min** at **72C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type  | Name                      | Amount        | Yield | EBC |
|-------|---------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale         | 5 kg (75.8%)  | 79 %  | 5   |
| Grain | Słód Brown Thomas Fawcett | 0.5 kg (7.6%) | 70 %  | 200 |
| Grain | Słód Cookie Viking Malt   | 0.5 kg (7.6%) | 72 %  | 50  |
| Grain | Czekoladowy ciemny VM     | 0.1 kg (1.5%) | 68 %  | 900 |
| Grain | Słód Karmelowy 50EBC      | 0.5 kg (7.6%) | 75 %  | 50  |

### Hops

| Use for | Name              | Amount | Time   | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil    | Zula              | 30 g   | 60 min | 7 %        |
| Boil    | Lublin (Lubelski) | 30 g   | 60 min | 4 %        |
| Boil    | Lublin (Lubelski) | 40 g   | 30 min | 4 %        |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | Fermentis  |