

Ciemne

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **43**
- SRM **17.6**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **25.9 liter(s)**

Steps

- Temp **70 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **20.1 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **12.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|------|
| Grain | Viking Pilsner malt | 5 kg (77.5%) | 80 % | 4 |
| Grain | Słód barwiący obłuszczoney | 0.25 kg (3.9%) | 65 % | 1000 |
| Grain | Płatki owsiane | 0.5 kg (7.8%) | 85 % | 3 |
| Sugar | Cukier biały | 0.7 kg (10.9%) | 100 % | 1 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil | Junga | 50 g | 30 min | 12.4 % |
| Aroma (end of boil) | East Kent Goldings | 30 g | 0 min | 5.4 % |

Yeasts

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