

Bitter

- Gravity **10 BLG**
- ABV **4 %**
- IBU **31**
- SRM **6.5**
- Style **Standard/Ordinary Bitter**

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 **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

Steps

- Temp **68 C**, Time **75 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **75 min** at **68C**
- Sparge using **20.8 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---|---------------|-------|-----|
| Grain | Słód Pale Ale strzegom | 4 kg (83.3%) | 79 % | 6 |
| Grain | Słód Monachijski Typ II Viking Malt 12-18 EBC | 0.4 kg (8.3%) | 79 % | 14 |
| Grain | Słód Caramunich Typ III Weyerman 140-160 | 0.2 kg (4.2%) | 73 % | 150 |
| Grain | Biscuit Malt | 0.2 kg (4.2%) | 79 % | 45 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Fuggles | 20 g | 60 min | 4.5 % |
| Boil | East Kent Goldings | 20 g | 60 min | 5.1 % |
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Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|-----------------|--------|---------|--------|
| Other | Mech Irlandzki | 5 g | Boil | 15 min |
| Other | Gips piwowarski | 10 g | Mash | 90 min |