

Bitter beer maters

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **32**
- SRM **5.5**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **25 %/h**
- Boil size **14.4 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **6 liter(s)**
- Total mash volume **7.7 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **10.1 liter(s)** of **76C** water or to achieve **14.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Monachijski typ II | 0.5 kg (29.4%) | 79 % | 22 |
| Grain | Strzegom Karmel 30 | 0.2 kg (11.8%) | 75 % | 30 |
| Grain | Viking Pale Ale malt | 1 kg (58.8%) | 90 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Fuggles | 10 g | 60 min | 4.5 % |
| Boil | Fuggles | 15 g | 30 min | 4.5 % |
| Boil | Fuggles | 10 g | 15 min | 4.5 % |
| Boil | Fuggles | 15 g | 5 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------|------|-------|--------|------------------|
| FM10 O czym szumią wierzby | Ale | Slant | 70 ml | Fermentum Mobile |
| Gestwa z #12 | | | | |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech irlandzki | 2.5 g | Boil | 10 min |