

Bitter 36

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **34**
- SRM **4.5**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **36 liter(s)**
- Trub loss **5 %**
- Size with trub loss **37.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **45.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

Steps

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

Mash step by step

- Heat up **24 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **29.5 liter(s)** of **76C** water or to achieve **45.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 4 kg (50%) | 80 % | 5 |
| Grain | Strzegom Wiedeński | 2 kg (25%) | 79 % | 10 |
| Grain | Karamel Pils Steinbach | 1 kg (12.5%) | 79 % | 6 |
| Grain | Żytni | 1 kg (12.5%) | 85 % | 8 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Citra | 40 g | 60 min | 12 % |
| Boil | Cascade | 30 g | 10 min | 6 % |
| Boil | Cascade | 45 g | 0 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 22 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------|--------|---------|-------|
| Fining | wirflock | 1 g | Boil | 5 min |