

Biterek

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **56**
- SRM **11.1**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **21.2 liter(s)**
- Total mash volume **26.5 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **21.2 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **77C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Simpsons - Maris Otter | 2.1 kg (39.6%) | 81 % | 6 |
| Grain | Viking Wheat Malt | 0.5 kg (9.4%) | 83 % | 5 |
| Grain | Strzegom Karmel 150 | 0.7 kg (13.2%) | 75 % | 150 |
| Grain | Viking Pale Ale malt | 2 kg (37.7%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Magnat | 60 g | 60 min | 7 % |
| Boil | Sybilla | 30 g | 15 min | 3.5 % |
| Boil | Lublin (Lubelski) | 30 g | 15 min | 3.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale | Dry | 11.5 g | Danstar |