

Epa

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **44**
- SRM **7.7**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

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

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 6 kg (95.2%) | 80 % | 5 |
| Grain | Strzegom Karmel 300 | 0.15 kg (2.4%) | 70 % | 299 |
| Grain | Karmelowy Jasny 30EBC | 0.15 kg (2.4%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|----------|--------|--------|------------|
| First Wort | Admiral | 25 g | 60 min | 13 % |
| Boil | Progress | 30 g | 15 min | 7.4 % |
| Boil | Progress | 50 g | 0 min | 7.4 % |