

Special Bitter by vettis

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **37**
- SRM **8.1**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **22.9 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **17.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (87.3%) | 80 % | 5 |
| Grain | Strzegom Pszeniczny | 0.2 kg (3.5%) | 81 % | 6 |
| Grain | Caramunich® typ I | 0.5 kg (8.7%) | 73 % | 80 |
| Grain | Weyermann - Carafa I | 0.03 kg (0.5%) | 70 % | 690 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Challenger | 30 g | 70 min | 7 % |
| Boil | East Kent Goldings | 30 g | 30 min | 5.1 % |
| Boil | East Kent Goldings | 15 g | 15 min | 5.1 % |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 7 g | Boil | 15 min |