

bitter

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **32**
- SRM **11.2**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **10 %**
- Size with trub loss **14.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **17.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14.8 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|-------|-----|
| Grain | Simpsons - Maris Otter | 3 kg (91.5%) | 81 % | 6 |
| Grain | Simpsons - Crystal Medium | 0.25 kg (7.6%) | 74 % | 168 |
| Grain | Weyermann - Dehusked Carafa II | 0.03 kg (0.9%) | 70 % | 837 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Challenger | 30 g | 30 min | 7 % |
| Boil | Challenger | 20 g | 5 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|------|--------|--------|------------------|
| FM11 Wichrowe Wzgórza | Ale | Liquid | 50 ml | Fermentum Mobile |