

Ordinary Bitter

- Gravity **10 BLG**
- ABV **4 %**
- IBU **27**
- SRM **7.5**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

Steps

- Temp **69 C**, Time **90 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **90 min** at **69C**
- Keep mash **5 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Briess - Pale Ale Malt | 3.2 kg (91.4%) | 80 % | 7 |
| Grain | Strzegom Karmel 150 | 0.3 kg (8.6%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Challenger | 20 g | 60 min | 7 % |
| Boil | Fuggles | 25 g | 10 min | 4.5 % |
| Boil | Fuggles | 20 g | 5 min | 4.5 % |
| Boil | Challenger | 25 g | 1 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|------|------|--------|------------|
| Danstar - Windsor Ale | Ale | Dry | 11 g | Danstar |