

Bitter

- Gravity **9.5 BLG**
- ABV ---
- IBU **27**
- SRM **6.4**
- Style **Standard/Ordinary Bitter**

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 **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **11.4 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 3.5 kg (92.1%) | 79 % | 6 |
| Grain | Colorado Crystal 25EBC | 0.2 kg (5.3%) | 79 % | 25 |
| Grain | Strzegom Karmel 300 | 0.1 kg (2.6%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Target | 20 g | 60 min | 9 % |
| Aroma (end of boil) | First Gold | 25 g | 5 min | 8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------|------|-------|--------|------------------|
| FM11 Wichrowe Wzgórze | Ale | Slant | 75 ml | Fermentum Mobile |