

#3

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **24**
- SRM **5.6**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **22.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **13 liter(s)**

Steps

- Temp **67 C**, Time **70 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **9.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **22.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|-------|-----|
| Grain | Strzegom Pilznieński | 2.75 kg (84.6%) | 80 % | 4 |
| Grain | Karmelowy Jasny 30EBC | 0.25 kg (7.7%) | 75 % | 30 |
| Grain | Caramunich® typ I | 0.25 kg (7.7%) | 73 % | 80 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Marynka | 20 g | 30 min | 8.7 % |
| Boil | East Kent Goldings | 15 g | 10 min | 5.1 % |
| Boil | East Kent Goldings | 10 g | 5 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |