

## #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 Pilzneński	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