

Full Aroma Hops

- Gravity **11.6 BLG**
- ABV ---
- IBU **53**
- SRM **6.7**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.4 liter(s)**

Steps

- Temp **67 C**, Time **90 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **67C**
- Sparge using **22.5 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (93.5%)	79 %	6
Grain	Strzegom pszeniczny	0.25 kg (4.7%)	81 %	6
Grain	Strzegom Karmel 150	0.1 kg (1.9%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	90 min	9 %
Aroma (end of boil)	Lublin (Lubelski)	40 g	45 min	4 %
Whirlpool	Lublin (Lubelski)	20 g	30 min	4 %
Dry Hop	Lublin (Lubelski)	20 g	5 day(s)	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	150 ml	Safale