

ESB

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **32**
- SRM **10.5**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.6 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **10.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **13.4 liter(s)** of **76C** water or to achieve **20.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (83.3%)	79 %	6
Grain	Strzegom Karmel 150	0.5 kg (13.9%)	75 %	150
Grain	Biscuit Malt	0.1 kg (2.8%)	79 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	8 %
Boil	Marynka	15 g	20 min	8 %
Boil	Marynka	15 g	1 min	8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Fermentis