

ESB

- Gravity **13.1 BLG**
- ABV ---
- IBU **63**
- SRM **10.7**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **15.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.9 liter(s)**
- Total mash volume **12.7 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **9.9 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **15.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2.6 kg (92%)	79 %	6
Grain	Crystal 150	0.1 kg (3.5%)	75 %	150
Grain	Caraamber	0.1 kg (3.5%)	75 %	59
Grain	Carafa III	0.025 kg (0.9%)	50 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Admiral	20 g	60 min	14.3 %
Boil	Styrian Golding	20 g	15 min	4.6 %
Aroma (end of boil)	Styrian Golding	20 g	0 min	4.6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	5 g	Danstar

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	2 g	Mash	60 min