

Extra Strong Bitter

- Gravity **13.1 BLG**
- ABV ---
- IBU **39**
- SRM **10.8**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.6 liter(s)**
- Total mash volume **23.9 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **18.6 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (94.3%)	80 %	5
Grain	Strzegom Karmel 300	0.3 kg (5.7%)	70 %	300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	20 g	60 min	7.4 %
Boil	Challenger	5 g	30 min	7.4 %
Boil	Fuggles	10 g	30 min	5.9 %
Boil	Challenger	10 g	15 min	7.4 %
Boil	Fuggles	10 g	15 min	5.9 %
Boil	Fuggles	10 g	5 min	5.9 %
Boil	East Kent Goldings	10 g	5 min	5.8 %
Aroma (end of boil)	Fuggles	10 g	5 min	5.9 %
Aroma (end of boil)	East Kent Goldings	15 g	5 min	5.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Danstar - London ESB	Ale	Dry	11 g	---
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Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	15 min