Extra Special Bitter

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **37**
- SRM **8.1**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **13.1 liter(s)**

Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **10.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2.1 kg *(72.4%)*	79 %	6
Grain	Aroma CastleMalting	0.25 kg *(8.6%)*	78 %	100
Grain	Monachijski	0.2 kg *(6.9%)*	80 %	22
Grain	Orkiszowy	0.2 kg *(6.9%)*	82 %	5
Grain	Acid Malt	0.15 kg *(5.2%)*	--- %	4.5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Boadicea	30 g	60 min	5.2 %
Boil	Boadicea	10 g	20 min	5.2 %
Aroma (end of boil)	Boadicea	10 g	0 min	5.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgórza	Ale	Liquid	35 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Water Agent	Gips piwowarski	1 g	Mash	---
Fining	Whirfloc	1 g	Boil	10 min