

## #9. Whisky extra stout

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- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **77**
- SRM **30.9**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.8 liter(s)**
- Total mash volume **29 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **68 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **21.8 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **68C**
- Keep mash **1 min** at **76C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód wedzony torfem (Viking)	2 kg (27.6%)	80 %	10
Grain	Malteurop Ale	2.5 kg (34.5%)	80 %	6
Grain	Pszeniczny	0.6 kg (8.3%)	85 %	4
Grain	Jęczmień palony	0.4 kg (5.5%)	55 %	985
Grain	Strzegom Monachijski typ I	1 kg (13.8%)	79 %	16
Grain	Płatki owsiane	0.5 kg (6.9%)	85 %	3
Grain	Strzegom Karmel 600	0.25 kg (3.4%)	68 %	601

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	12.9 %
Boil	lunga	20 g	45 min	12.9 %
Aroma (end of boil)	Oktawia	15 g	30 min	8.8 %
Aroma (end of boil)	Oktawia	15 g	15 min	8.8 %
Aroma (end of boil)	Oktawia	20 g	10 min	8.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	240 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Other	Płatki debowe średnio palone macerowane w Jack Daniels	25 g	Secondary	14 day(s)
Other	Płatki High Mocha	20 g	Secondary	14 day(s)