

# Zawisza Czarny - Peated Oatmeal FES

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **11**
- SRM **30.7**
- 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 **3.7 liter(s) / kg**
- Mash size **22.6 liter(s)**
- Total mash volume **28.7 liter(s)**

## Steps

- Temp **67 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **22.6 liter(s)** of strike water to **73.3C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.4 kg (55.7%)	85 %	7
Grain	Strzegom Karmel 30	0.4 kg (6.6%)	75 %	30
Grain	Castle Malting Whisky Nature	1 kg (16.4%)	85 %	4
Grain	Płatki owsiane	0.5 kg (8.2%)	50 %	3
Grain	Caraaroma	0.3 kg (4.9%)	78 %	400
Grain	Jęczmień palony	0.3 kg (4.9%)	55 %	985
Grain	Weyermann - Carafa I	0.2 kg (3.3%)	70 %	690

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	English Golding	15 g	60 min	4.7 %
Boil	English Golding	15 g	20 min	4.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Dry	11.5 g	Safale
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