

## FEZ

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **50**
- SRM **31.6**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **21.4 liter(s)**
- Trub loss **15 %**
- Size with trub loss **24.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.3 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**

### Mash step by step

- Heat up **19.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (44.8%)	79 %	6
Grain	Strzegom Wiedeński	2 kg (29.9%)	79 %	10
Grain	Płatki pszeniczne	0.8 kg (11.9%)	60 %	3
Grain	Jęczmień palony	0.3 kg (4.5%)	55 %	1100
Grain	Strzegom Czekoladowy ciemny	0.3 kg (4.5%)	68 %	985
Sugar	Corn Sugar (Dextrose)	0.3 kg (4.5%)	100 %	0

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Marynka	50 g	60 min	8.8 %
Boil	Marynka	15 g	25 min	8.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	100 ml	Fermentum Mobile