FEZ

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **51**
- SRM **34.3**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **16.4 liter(s)**
- Trub loss **10 %**
- Size with trub loss **18 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **21.7 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **21.2 liter(s)**
- Total mash volume **26.5 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **21.2 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **5.8 liter(s)** of **76C** water or to achieve **21.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.4 kg *(64.2%)*	79 %	6
Grain	płatki jęczmienne	1.4 kg *(26.4%)*	60 %	4
Grain	Jęczmień palony	0.5 kg *(9.4%)*	55 %	1100

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Marynka	45 g	60 min	8.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Fermentis