

## FES 6

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **39**
- SRM **27.4**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.6 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **36.9 liter(s)**
- Total mash volume **49.2 liter(s)**

### Steps

- Temp **64 C**, Time **55 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **36.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **55 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **26 liter(s)** of **76C** water or to achieve **50.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	10 kg (81.3%)	80 %	4
Grain	Strzegom Karmel 300	0.6 kg (4.9%)	70 %	299
Grain	Strzegom Barwiący	0.3 kg (2.4%)	68 %	1300
Grain	Płatki pszeniczne	1 kg (8.1%)	85 %	3
Grain	Jęczmień palony	0.4 kg (3.3%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	100 g	60 min	6.1 %
Aroma (end of boil)	East Kent Goldings	100 g	10 min	4.7 %
Aroma (end of boil)	Lublin (Lubelski)	25 g	5 min	5.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	12 g	Safale