

# KAWOWY FES

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- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **36**
- SRM **48.5**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **70 min**
- Evaporation rate **12 %/h**
- Boil size **27.4 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **75.2C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **27.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (62.5%)	85 %	7
Grain	Płatki owsiane	1 kg (12.5%)	85 %	3
Grain	Weyermann Specjal W	0.5 kg (6.3%)	68 %	300
Grain	Weyermann - Melanoiden Malt	0.5 kg (6.3%)	81 %	53
Grain	Fawcett - Pszeniczny Czekoladowy	0.4 kg (5%)	73 %	1001
Grain	Jęczmień palony	0.3 kg (3.8%)	55 %	985
Grain	Weyermann - Carafa III	0.3 kg (3.8%)	70 %	1024

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	15 g	60 min	13.6 %
Boil	Chinook	20 g	60 min	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Slant	150 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Flavor	kawa	100 g	Secondary	6 day(s)
Flavor	płatki dębowe	65 g	Secondary	21 day(s)

### Notes

- płatki 3g na litr na ok 3 tygodnie  
kawa 5g na litr na ok tydzień  
*Jan 18, 2020, 12:57 AM*