

# 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*