

# Fester

- Gravity **15.8 BLG**
- ABV ---
- IBU **52**
- SRM **38.6**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

## Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **25 min**

## Mash step by step

- Heat up **18.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **25 min** at **72C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC  |
|-------|-----------------------------|---------------|-------|------|
| Grain | Strzegom Pilzneński         | 4 kg (63.5%)  | 80 %  | 4    |
| Grain | Strzegom Monachijski typ II | 1 kg (15.9%)  | 79 %  | 22   |
| Grain | Strzegom Karmel 150         | 0.5 kg (7.9%) | 75 %  | 150  |
| Grain | Oats, Flaked                | 0.5 kg (7.9%) | 80 %  | 2    |
| Grain | Carafa III Special          | 0.3 kg (4.8%) | 70 %  | 1200 |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | lunga             | 40 g   | 60 min | 11 %       |
| Aroma (end of boil) | Lublin (Lubelski) | 30 g   | 10 min | 4 %        |

## Yeasts

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