

Oaked FES

- Gravity **19.9 BLG**
- ABV ---
- IBU **70**
- SRM **40**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **22.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

Steps

- Temp **64 C**, Time **90 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **0 min** at **76C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale | 5 kg (73.5%) | 79 % | 6 |
| Grain | Weyermann - Dark Wheat Malt | 0.5 kg (7.4%) | 85 % | 14 |
| Grain | Strzegom Karmel 30 | 0.2 kg (2.9%) | 75 % | 30 |
| Grain | płatki owsiane | 0.4 kg (5.9%) | 65 % | --- |
| Grain | pszenica palona | 0.3 kg (4.4%) | 55 % | 985 |
| Grain | Weyermann - Chocolate Wheat | 0.4 kg (5.9%) | 74 % | 788 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Marynka | 50 g | 60 min | 10 % |
| Boil | Columbus/Tomahawk/Zeus | 15 g | 30 min | 15.5 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 15 g | 5 min | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 150 ml | Safale |

Extras

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

| Type | Name | Amount | Use for | Time |
|-------|---|--------|-----------|-----------|
| Other | płatki dębowe amerykańskie średnio palone | 100 g | Secondary | 21 day(s) |

Notes

- FFT,
21 dni z płatkami dębowymi
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