

# FES z płatkami dębowymi i ew. wanilią

- Gravity **18.9 BLG**
- ABV **8.2 %**
- IBU **52**
- SRM **34.7**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **4 %**
- Size with trub loss **22.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

## Fermentables

| Type           | Name                              | Amount         | Yield | EBC |
|----------------|-----------------------------------|----------------|-------|-----|
| Liquid Extract | Liquid Extract (LME)<br>- Pale    | 5.1 kg (78.5%) | 78 %  | 16  |
| Grain          | Jęczmień palony                   | 0.26 kg (4%)   | 55 %  | 985 |
| Grain          | Black (Patent) Malt               | 0.15 kg (2.3%) | 55 %  | 985 |
| Grain          | Brown Malt (British<br>Chocolate) | 0.1 kg (1.5%)  | 70 %  | 128 |
| Grain          | Caramel/Crystal<br>Malt - 30L     | 0.3 kg (4.6%)  | 75 %  | 59  |
| Grain          | Chocolate Malt (UK)               | 0.27 kg (4.2%) | 73 %  | 887 |
| Adjunct        | Oats, Flaked                      | 0.19 kg (2.9%) | 80 %  | 2   |
| Sugar          | Dememera Sugar                    | 0.13 kg (2%)   | 100 % | 4   |

## Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 40 g   | 60 min | 15.5 %     |
| Aroma (end of boil) | Cascade                | 10 g   | 10 min | 6 %        |

## Yeasts

| Name                    | Type | Form  | Amount | Laboratory |
|-------------------------|------|-------|--------|------------|
| Danstar -<br>Nottingham | Ale  | Slant | 200 ml | Danstar    |

## Extras

| Type   | Name               | Amount | Use for   | Time      |
|--------|--------------------|--------|-----------|-----------|
| Flavor | płatki dębowe      | 50 g   | Secondary | 21 day(s) |
| Flavor | ekstrakt winiliowy | 20 g   | Secondary | 21 day(s) |