

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) - 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 Chocolate) | 0.1 kg (1.5%) | 70 % | 128 |
| Grain | Caramel/Crystal 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 - 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) |