

# 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)