

## FR02

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **46**
- SRM **4.6**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **15.8 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **77C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Pale Ale Strzegom	4 kg (76.2%)	79 %	6
Grain	Słód Pilznieński Viking Malt	1 kg (19%)	80 %	4
Grain	Słód Caramel Pale	0.25 kg (4.8%)	77 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	13 %
Boil	Cascade	15 g	30 min	6 %
Boil	Citra	20 g	15 min	13 %
Boil	Lemon drop	20 g	10 min	4.6 %
Dry Hop	Chinook	40 g	7 day(s)	13 %
Dry Hop	Citra	30 g	7 day(s)	13 %
Dry Hop	Lemon drop	30 g	7 day(s)	46 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar