

# ExcuseMyFrenz

- Gravity **15.4 BLG**
- ABV ---
- IBU **79**
- SRM **6.4**
- Style **Belgian IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **2 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **65 min**
- Evaporation rate **17 %/h**
- Boil size **27.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **23.4 liter(s)**

## Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	3 kg (51.3%)	82.61 %	8
Grain	Pilsner	1.5 kg (25.6%)	82.61 %	3
Grain	Munich Light	1 kg (17.1%)	80.43 %	15
Grain	Caramel Pils	0.35 kg (6%)	73.91 %	20

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	30 g	60 min	14.7 %
Boil	Amarillo	30 g	30 min	8.6 %
Boil	Amarillo	25 g	15 min	8.6 %
Boil	Nelson Sauvín	20 g	2 min	11.2 %
Dry Hop	Nelson Sauvín	30 g	3 day(s)	11.2 %
Dry Hop	Amarillo	30 g	1 day(s)	8.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M27 Belgian Ale	Ale	Dry	11 g	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Gypsum	4 g	Mash	0 min