

# citrus

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **86**
- SRM **3.7**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **27.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

## Steps

- Temp **50 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **15.9 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **15 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **27.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.2 kg (79.2%)	81 %	4
Grain	Weyermann - Carapils	1.1 kg (20.8%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	50 g	30 min	12 %
Boil	Citra	50 g	20 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Lager	Dry	11.5 g	---

## Notes

- franekca.pl.tl  
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