

Apa Earl Grey Lemon

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **33**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.8 liter(s)**
- Total mash volume **10.4 liter(s)**

Steps

- Temp **51 C**, Time **10 min**
- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **7.8 liter(s)** of strike water to **56.2C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **40 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **10.6 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep Pilsner	2.3 kg (88.5%)	84 %	4
Grain	Carahell	0.3 kg (11.5%)	77 %	26

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	60 min	11.7 %
Boil	Cascade	10 g	20 min	8.3 %
Aroma (end of boil)	Cascade	10 g	5 min	8.3 %
Dry Hop	Citra	50 g	3 day(s)	13.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Slant	150 ml	Danstar

Extras

Type	Name	Amount	Use for	Time
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Flavor	Olejek naturalny Bergamotowy	2 g	Bottling	---
Flavor	Olejek naturalny Cytrynowy	1 g	Bottling	---