

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 |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

| | | | | |
|--------|------------------------------|-----|----------|-----|
| Flavor | Olejek naturalny Bergamotowy | 2 g | Bottling | --- |
| Flavor | Olejek naturalny Cytrynowy | 1 g | Bottling | --- |