

TeaPA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **50**
- SRM **7.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 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 **64 C**, Time **30 min**
- Temp **71 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **71C**
- Keep mash **15 min** at **78C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---|----------------|-------|-----|
| Grain | Słód Pilsner® 2,5-4,5 EBC Weyermann | 4.5 kg (84.9%) | 80 % | 4 |
| Grain | Słód Caramunich Typ II Weyermann | 0.3 kg (5.7%) | 73 % | 150 |
| Grain | Carabelge | 0.5 kg (9.4%) | 80 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | Chinook | 15 g | 60 min | 12.8 % |
| Boil | Mosaic | 20 g | 60 min | 12.1 % |
| Boil | Amarillo | 30 g | 5 min | 8.9 % |
| Aroma (end of boil) | Mosaic | 50 g | 1 min | 12.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | mech | 5 g | Boil | 15 min |
| Flavor | skorka cytryny | 50 g | Boil | 3 min |