

Charming Solo

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **20**
- SRM **3.9**
- Style **Fruit Beer**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **4 %**
- Size with trub loss **24 liter(s)**
- Boil time **70 min**
- Evaporation rate **16 %/h**
- Boil size **29.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **19.6 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **29.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Pilsner (2 Row) Ger | 2.5 kg (44.6%) | 81 % | 4 |
| Grain | Pszeniczny | 2.5 kg (44.6%) | 85 % | 5 |
| Grain | Płatki owsiane | 0.6 kg (10.7%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------|--------|--------|------------|
| Boil | lunga | 10 g | 60 min | 12.9 % |
| Aroma (end of boil) | Citra | 25 g | 5 min | 14.2 % |
| Whirlpool | Citra | 25 g | 0 min | 14.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|------------|
| US-05 | Ale | Slant | 100 ml | Fermentis |