

Cytrynka

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **39**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **15.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.19 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **13.2 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **10 liter(s)** of strike water to **75.5C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **8.6 liter(s)** of **76C** water or to achieve **15.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|-----------------|-------|-----|
| Grain | Pale Ale | 2 kg (63.6%) | 80 % | 4 |
| Grain | Pilzneński | 0.72 kg (22.9%) | 81 % | 4 |
| Grain | Pszeniczny | 0.2 kg (6.4%) | 85 % | 4 |
| Grain | Strzegom Karmel 30 | 0.223 kg (7.1%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Citra Szyszka | 10 g | 20 min | 12.7 % |
| Boil | Amarillo | 10 g | 15 min | 8.9 % |
| Boil | Amarillo | 10 g | 10 min | 8.9 % |
| Boil | Columbus/Tomahawk/Zeus | 8 g | 10 min | 12.5 % |
| Aroma (end of boil) | Centennial | 8 g | 5 min | 8.5 % |
| Aroma (end of boil) | Amarillo | 10 g | 5 min | 8.9 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 10 g | 0 min | 12.5 % |
| Aroma (end of boil) | Citra Szyszka | 30 g | 0 min | 12.7 % |
| Aroma (end of boil) | Centennial | 4 g | 0 min | 10.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 400 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------|-----------------|--------|-----------|----------|
| Spice | Trawa Cytrynowa | 15 g | Boil | 10 min |
| Spice | Skórki Cytryny | 30 g | Boil | 10 min |
| Spice | Skórki Cytryny | 10 g | Secondary | 4 day(s) |