

Grand Champion

- Gravity **17.1 BLG**
- ABV ---
- IBU **99**
- SRM **8.6**
- Style **Imperial IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.61 liter(s) / kg**
- Mash size **16.7 liter(s)**
- Total mash volume **23.1 liter(s)**

Steps

- Temp **55 C**, Time **0 min**
- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **4 min**

Mash step by step

- Heat up **16.7 liter(s)** of strike water to **61.7C**
- Add grains
- Keep mash **0 min** at **55C**
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **4 min** at **77C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Pilzneński | 4.8 kg (69.6%) | 81 % | 4 |
| Grain | Weyermann pszeniczny jasny | 0.7 kg (10.1%) | 80 % | 6 |
| Grain | Strzegom Monachijski typ I | 0.7 kg (10.1%) | 79 % | 16 |
| Grain | Cara Gold Castlemalting | 0.2 kg (2.9%) | 78 % | 120 |
| Sugar | Cukier | 0.5 kg (7.2%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Magnum | 30 g | 60 min | 13.5 % |
| Boil | Columbus/Tomahawk/Zeus | 20 g | 30 min | 15.5 % |
| Boil | Simcoe | 20 g | 20 min | 13 % |
| Boil | Citra | 20 g | 15 min | 12 % |
| Boil | Centennial | 20 g | 15 min | 10.5 % |
| Boil | CUKIER | 1 g | 15 min | 1 % |

| | | | | |
|---------|------------------------|------|----------|--------|
| Boil | Ahtanum | 20 g | 5 min | 5 % |
| Boil | Amarillo | 20 g | 2 min | 9.5 % |
| Boil | Simcoe | 20 g | 1 min | 13 % |
| Dry Hop | Columbus/Tomahawk/Zeus | 40 g | 6 day(s) | 15.5 % |
| Dry Hop | Citra | 40 g | 6 day(s) | 12 % |
| Dry Hop | Amarillo | 40 g | 6 day(s) | 9.5 % |
| Dry Hop | Simcoe | 40 g | 6 day(s) | 13 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|------|--------|--------|-------------|
| Wyeast - American Ale | Ale | Liquid | 30 ml | Wyeast Labs |