

#TO DO#WincyjJBÓW!!!!111

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **109**
- SRM **5.8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **65 min**
- Evaporation rate **10 %/h**
- Boil size **26.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **25.9 liter(s)**

Steps

- Temp **69 C**, Time **80 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **20.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **80 min** at **69C**
- Keep mash **5 min** at **78C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **26.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Bestt Pale Ale | 4 kg (66.7%) | 80.5 % | 6 |
| Grain | Briess - Vienna Malt | 1 kg (16.7%) | 77.5 % | 7 |
| Grain | Carahell | 0.5 kg (8.3%) | 77 % | 26 |
| Sugar | Cukier | 0.25 kg (4.2%) | 100 % | 1 |
| Grain | Weyermann - Acidulated Malt | 0.25 kg (4.2%) | 80 % | 6 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|------------------------|--------|--------|------------|
| First Wort | Columbus/Tomahawk/Zeus | 20 g | 70 min | 15.5 % |
| Boil | Columbus/Tomahawk/Zeus | 20 g | 50 min | 15.5 % |
| Boil | Centennial | 25 g | 30 min | 10.5 % |
| Boil | Centennial | 10 g | 20 min | 10.5 % |
| Boil | Centennial | 10 g | 10 min | 10.5 % |
| Boil | Citra | 25 g | 10 min | 12 % |
| Boil | Centennial | 5 g | 5 min | 10.5 % |
| Boil | Citra | 25 g | 5 min | 12 % |
| Boil | Columbus/Tomahawk/Zeus | 10 g | 1 min | 15.5 % |

| | | | | |
|---------|------------|------|----------|--------|
| Boil | Citra | 25 g | 1 min | 12 % |
| Dry Hop | Citra | 75 g | 3 day(s) | 12 % |
| Dry Hop | Centennial | 50 g | 3 day(s) | 10.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|------------|
| US-05 | Ale | Slant | 120 ml | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------|--------|---------|--------|
| Water Agent | Gips | 4 g | Mash | 70 min |
| Fining | Whirlfloc | 2 g | Boil | 10 min |