

ray ipa

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **16**
- SRM **4.6**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **30.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **36.2 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **22.2 liter(s)** of **76C** water or to achieve **36.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Pale Malt (2 Row) UK | 5.6 kg (80%) | 78 % | 6 |
| Grain | Rye Malt | 0.75 kg (10.7%) | 63 % | 10 |
| Grain | Briess - Carapils Malt | 0.5 kg (7.1%) | 74 % | 3 |
| Grain | Briess - Wheat Malt, White | 0.15 kg (2.1%) | 85 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Aroma (end of boil) | Motueka | 30 g | 15 min | 7 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 15 g | 15 min | 15.5 % |
| Dry Hop | Motueka | 70 g | 5 day(s) | 7 % |
| Dry Hop | Columbus/Tomahawk/Zeus | 35 g | 5 day(s) | 15.5 % |