

Happy new beer

- Gravity **17.3 BLG**
- ABV ---
- IBU **62**
- SRM **4.5**
- Style **Imperial IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------|----------------|--------|-----|
| Grain | Golden Promise | 4.5 kg (67.2%) | 79.5 % | 4 |
| Grain | Maris Otter | 2 kg (29.9%) | 80.3 % | 6 |
| Sugar | cukier | 0.2 kg (3%) | --- % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 20 g | 60 min | 12.5 % |
| Boil | El Dorado | 25 g | 20 min | 15 % |
| Boil | Mosaic | 25 g | 20 min | 12 % |
| Aroma (end of boil) | Simcoe | 20 g | 5 min | 13.2 % |
| Whirlpool | Citra | 50 g | 1 min | 13.5 % |
| Whirlpool | El Dorado | 50 g | 1 min | 15 % |
| Dry Hop | first dry hop Citra | 50 g | 3 day(s) | 13.5 % |
| Dry Hop | first dry hop Mosaic | 40 g | 3 day(s) | 12 % |
| Dry Hop | first dry hop Centennial | 50 g | 3 day(s) | 9.5 % |
| Dry Hop | first dry hop El Dorado | 25 g | 3 day(s) | 15 % |

| | | | | |
|---------|---------------------------|------|----------|--------|
| Dry Hop | second dry hop El Dorado | 45 g | 3 day(s) | 15 % |
| Dry Hop | second dry hop Mosaic | 35 g | 3 day(s) | 12 % |
| Dry Hop | second dry hop centennial | 50 g | 3 day(s) | 9.5 % |
| Dry Hop | second dry hop Simcoe | 30 g | 3 day(s) | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|--------|---------|--------|
| Water Agent | gips piwowarski | 10 g | Mash | 60 min |