

Pirate Jack

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **72**
- SRM **5.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.9 liter(s)**
- Total mash volume **27.8 liter(s)**

Steps

- Temp **67 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **20.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **30 min** at **67C**
- Keep mash **30 min** at **72C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|--------|-----|
| Grain | Pale Ale - Viking Malt | 5.2 kg (74.8%) | 80 % | 6 |
| Grain | BESTMALZ - Best Wheat Malt | 0.5 kg (7.2%) | 82 % | 5 |
| Grain | BESTMALZ - Best Vienna | 1 kg (14.4%) | 80.5 % | 9 |
| Grain | Bestmalz Carmel Pils | 0.25 kg (3.6%) | 70 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Chinook | 20 g | 60 min | 11.5 % |
| Boil | Simcoe | 30 g | 30 min | 12.9 % |
| Boil | Citra | 20 g | 30 min | 13.6 % |
| Aroma (end of boil) | Simcoe | 10 g | 1 min | 12.9 % |
| Aroma (end of boil) | Cascade | 20 g | 1 min | 6.5 % |

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 |
| Water Agent | Chlorek wapnia | 7 g | Mash | 60 min |
| Fining | Mech irlandzki | 5 g | Boil | 60 min |