

#22 APA OZA

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **34**
- SRM **5.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **11.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|--------|-----|
| Grain | Viking Pale Ale malt | 2 kg (51.3%) | 80 % | 5 |
| Grain | Viking Wheat Malt | 1 kg (25.6%) | 83 % | 5 |
| Grain | Biscuit Malt | 0.5 kg (12.8%) | 79 % | 45 |
| Grain | Rye, Flaked | 0.4 kg (10.3%) | 78.3 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|----------|------------|
| Mash | Oktawia | 15 g | 60 min | 7.1 % |
| Boil | Oktawia | 15 g | 60 min | 7.1 % |
| Boil | Zula | 50 g | 5 min | 8.3 % |
| Boil | Amarillo | 50 g | 5 min | 9.5 % |
| Dry Hop | Oktawia | 20 g | 3 day(s) | 7.1 % |
| Dry Hop | Zula | 50 g | 3 day(s) | 8.3 % |
| Dry Hop | Amarillo | 50 g | 3 day(s) | 9.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|---------------|-----|-------|--------|-------|
| Lutra OYL-071 | Ale | Slant | 200 ml | Omega |
|---------------|-----|-------|--------|-------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------------|--------|---------|--------|
| Fining | Wirflock | 0.5 g | Boil | 10 min |
| Flavor | Skórka pomarańczy | 25 g | Boil | 5 min |