

APA

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **41**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **19.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **27.3 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (90.9%) | 80 % | 5 |
| Grain | Pszeniczny | 0.5 kg (9.1%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 5 g | 50 min | 15.5 % |
| Boil | Columbus/Tomahawk/Zeus | 5 g | 30 min | 15.5 % |
| Aroma (end of boil) | Citra | 5 g | 15 min | 12 % |
| Aroma (end of boil) | Simcoe | 5 g | 15 min | 13.2 % |
| Aroma (end of boil) | Cascade | 5 g | 15 min | 7.1 % |
| Aroma (end of boil) | Citra | 10 g | 10 min | 12 % |
| Aroma (end of boil) | Simcoe | 10 g | 10 min | 13.2 % |
| Aroma (end of boil) | Cascade | 10 g | 10 min | 7.1 % |
| Aroma (end of boil) | Citra | 10 g | 5 min | 12 % |
| Aroma (end of boil) | Simcoe | 10 g | 5 min | 13.2 % |
| Aroma (end of boil) | Cascade | 10 g | 5 min | 7.1 % |
| Whirlpool | Citra | 5 g | 0 min | 12 % |
| Whirlpool | Simcoe | 20 g | 0 min | 13.2 % |
| Whirlpool | Cascade | 10 g | 0 min | 7.1 % |
| Dry Hop | Citra | 20 g | 5 day(s) | 12 % |
| Dry Hop | Simcoe | 5 g | 5 day(s) | 13.2 % |
| Dry Hop | Cascade | 15 g | 5 day(s) | 7.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |