

APA

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **51**
- SRM **4**
- Style **American Pale Ale**

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 **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.5 kg (90%) | 80 % | 5 |
| Grain | Płatki owsiane | 0.5 kg (10%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|-----------------|--------|----------|------------|
| Boil | Denali | 15 g | 60 min | 12 % |
| Boil | Amarillo | 15 g | 60 min | 9 % |
| Boil | Denali | 10 g | 1 min | 12 % |
| Boil | Amarillo | 10 g | 1 min | 9 % |
| Whirlpool | Mosaic | 20 g | 10 min | 10 % |
| First Wort | Amarillo | 5 g | 60 min | 9.5 % |
| First Wort | Denali | 5 g | 60 min | 12 % |
| Dry Hop | Hallertau Blanc | 50 g | 3 day(s) | 11 % |
| Dry Hop | Galaxy | 25 g | 3 day(s) | 15 % |
| Dry Hop | Amarillo | 25 g | 3 day(s) | 9.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |