

#1 APA

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **38**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **10.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.3 liter(s)**
- Total mash volume **10.7 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 1.75 kg (73.7%) | 80 % | 5 |
| Grain | Strzegom Wiedeński | 0.5 kg (21.1%) | 79 % | 10 |
| Grain | Karmelowy Jasny 30EBC | 0.125 kg (5.3%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 7.5 g | 60 min | 15.5 % |
| Aroma (end of boil) | Cascade | 16 g | 20 min | 6 % |

Yeasts

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