

APA KOP

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **118**
- SRM **13.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **3 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **22.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **26.8 liter(s)**

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 2.5 kg (37.3%) | 85 % | 7 |
| Grain | Weyermann - Carapils | 1.2 kg (17.9%) | 78 % | 4 |
| Grain | Weyermann - Carared | 1.5 kg (22.4%) | 75 % | 45 |
| Grain | Weyermann - Melanoiden Malt | 1.5 kg (22.4%) | 81 % | 53 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 50 g | 60 min | 15.5 % |
| Boil | Cascade PL | 30 g | 40 min | 5.2 % |
| Boil | Sorachi Ace | 30 g | 20 min | 10 % |
| Aroma (end of boil) | Falconers flight | 30 g | 15 min | 9.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |