

## Clone Radio - Low APA

- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **14**
- SRM **3.5**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.8 liter(s)**
- Total mash volume **11.8 liter(s)**

### Steps

- Temp **77 C**, Time **45 min**

### Mash step by step

- Heat up **8.8 liter(s)** of strike water to **86.6C**
- Add grains
- Keep mash **45 min** at **77C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

| Type  | Name                  | Amount         | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński   | 2 kg (67.8%)   | 80 %  | 4   |
| Grain | Owsiany castlemalting | 0.3 kg (10.2%) | 61 %  | 5   |
| Grain | Żytni                 | 0.3 kg (10.2%) | 85 %  | 9   |
| Grain | Abbey Malt Weyermann  | 0.2 kg (6.8%)  | 75 %  | 45  |
| Grain | Bestmalz Carmel Pils  | 0.15 kg (5.1%) | 75 %  | 5   |

### Hops

| Use for                    | Name       | Amount | Time     | Alpha acid |
|----------------------------|------------|--------|----------|------------|
| Boil                       | Iunga      | 10 g   | 15 min   | 11 %       |
| Whirlpool                  | Chinook    | 20 g   | 15 min   | 11.7 %     |
| Whirlpool                  | Cascade    | 30 g   | 0 min    | 7.1 %      |
| Hopstand 77 stopni - 30min |            |        |          |            |
| Dry Hop                    | Cascade    | 40 g   | 2 day(s) | 7.1 %      |
| Dry Hop                    | Centennial | 50 g   | 2 day(s) | 9.5 %      |

### Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 120 ml | safbrew    |