

## 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	Żytmi	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