

WEST COAST ZULA PPA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **79**
- SRM **4.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **19.8 liter(s)**

Steps

- Temp **63 C**, Time **60 min**

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **60 min** at **63C**
- Sparge using **19.4 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.45 kg (78.8%)	81 %	4
Grain	Strzegom Monachijski typ II	0.5 kg (8.8%)	79 %	22
Grain	Pszeniczny	0.7 kg (12.4%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	50 g	60 min	9.7 %
Boil	Zula	30 g	15 min	9.7 %
Aroma (end of boil)	Zula	50 g	0 min	9.7 %
Whirlpool	Zula	70 g	20 min	9.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	11.5 g	Mangrove Jack's