

Panna Maria, TX

- Gravity **14.3 BLG**
- ABV ---
- IBU **58**
- SRM **5.2**
- Style **American IPA**

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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **50 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **50 min** at **62C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Flagon	5 kg (90.9%)	80 %	5
Grain	Briess - 2 Row Carapils Malt	0.5 kg (9.1%)	75 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	40 g	50 min	13.2 %
Aroma (end of boil)	Simcoe	15 g	5 min	13.2 %
Dry Hop	Pacifica (NZ)	15 g	7 day(s)	4.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	fermentis