

Japa

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **21**
- SRM **5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale ale	5 kg (100%)	80 %	7

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.5 %
Boil	Centennial	10 g	10 min	10.5 %
Aroma (end of boil)	Chinook	5 g	1 min	13 %
Dry Hop	Centennial	10 g	4 day(s)	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
US - 05	Ale	Dry	7.5 g	Fermentis