

## #6 Cascade/Amarillo

- Gravity **13 BLG**
- ABV ---
- IBU **47**
- SRM **12**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **32.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **20.7 liter(s)** of **76C** water or to achieve **32.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	5 kg (83.3%)	80 %	7
Grain	Cara crystal	0.3 kg (5%)	78 %	120
Grain	Weyermann Munich	0.7 kg (11.7%)	80 %	65

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	90 g	60 min	5 %
Boil	Amarillo	30 g	10 min	7.2 %
Boil	Amarillo	30 g	1 min	7.2 %
Dry Hop	Amarillo	40 g	5 day(s)	7.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar