

#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 |