

## West Coast Cascade

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **37**
- SRM **6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **10 %**
- Size with trub loss **46 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **55.2 liter(s)**

### Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **31.2 liter(s)**
- Total mash volume **41.6 liter(s)**

### Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **31.2 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **34.4 liter(s)** of **76C** water or to achieve **55.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	10 kg (96.2%)	80.5 %	4
Grain	Strzegom Karmel 150	0.4 kg (3.8%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	80 g	60 min	5.9 %
Boil	Cascade	40 g	30 min	5.9 %
Boil	Cascade	40 g	5 min	5.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	23 g	Mangrove Jack's