

## West Coast IPA pierwszy

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **59**
- SRM **10.5**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **32.8 liter(s)**

### Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3.93 liter(s) / kg**
- Mash size **23.6 liter(s)**
- Total mash volume **29.6 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **23.6 liter(s)** of strike water to **69.6C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **76C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **32.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Bestmalz Red X	5 kg (83.3%)	79 %	30
Grain	Pilsner malt Muntons	1 kg (16.7%)	82 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	25 g	60 min	16.6 %
Aroma (end of boil)	Chinook	30 g	15 min	12 %
Aroma (end of boil)	Chinook	20 g	10 min	12 %
Aroma (end of boil)	Comet	10 g	5 min	8.8 %
Dry Hop	Chinook	35 g	5 day(s)	12 %
Dry Hop	Comet	40 g	5 day(s)	8.8 %
Dry Hop	Columbus/Tomahawk/Zeus	40 g	3 day(s)	16.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Liquid	800 ml	starter
gęstwa 11-dniowa				

## Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	6 g	Mash	90 min
Water Agent	chlorek wapnia [ml]	1.72 g	Mash	90 min
Fining	whirflok	1 g	Boil	15 min