

# cuba libre

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- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **33**
- SRM **22.3**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **12.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **78C**
- Sparge using **5.7 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1 kg (28.6%)	80 %	5
Grain	Płatki owsiane	0.5 kg (14.3%)	85 %	3
Grain	Pszeniczny	1.5 kg (42.9%)	85 %	4
Grain	Caraaroma	0.5 kg (14.3%)	78 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	chinool PL	30 g	15 min	13 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Windsor Ale	Ale	Slant	150 ml	Danstar

## Notes

- Na cichą na 5 dni płatki dębowe po beczce rumu macerowane rumem  
Do re fermentacji użyć cukru muscovado  
Na ostanie pół godziny carafa specjal 250g  
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