

# Polish PA VERMELHO Single Hop

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- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **29**
- SRM **3.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6.6 liter(s)**
- Total mash volume **8.8 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **6.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **77C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **13.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (90.9%)	80 %	5
Grain	viking carabody	0.2 kg (9.1%)	80 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	VERMELHO	5 g	40 min	9.1 %
Whirlpool	VERMELHO	40 g	15 min	9.1 %
Dry Hop	VERMELHO	55 g	3 day(s)	9.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis