

# Niemiec w brytyjskim pubie

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **29**
- SRM **10.3**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **1 min** at **78C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (83.3%)	80 %	5
Grain	Słód Caramunich Typ II Weyermann	0.5 kg (16.7%)	73 %	120

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	callista	10 g	60 min	3.9 %
Boil	callista	20 g	30 min	3.9 %
Boil	callista	20 g	5 min	3.9 %
Whirlpool	callista	50 g	15 min	3.9 %

## Yeasts

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