

# PAN TU NIE STOUT

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **78**
- SRM **29**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**

## Mash step by step

- Heat up **16.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (89.3%)	79 %	6
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.6%)	68 %	1200
Grain	Jęczmień palony	0.2 kg (3.6%)	55 %	985
Grain	Caraaroma	0.2 kg (3.6%)	78 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	10 %
Boil	Magnum	7 g	60 min	13.5 %
Boil	Lublin (Lubelski)	20 g	60 min	4 %
Boil	Centennial	30 g	5 min	10.5 %
Dry Hop	Centennial	20 g	7 day(s)	10.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11 g	---