

# AMERICAN STOUT 16 BLG # 90

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **80**
- SRM **31**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **10 %**
- Size with trub loss **18.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **24.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (84.7%)	85 %	7
Grain	Strzegom Czekoladowy ciemny	0.3 kg (5.1%)	68 %	1000
Grain	Słód Caramunich Typ II Weyermann	0.4 kg (6.8%)	73 %	110
Grain	Weyermann - Carafa II	0.2 kg (3.4%)	70 %	900

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia PH	45 g	45 min	8.3 %
Boil	PHEXP- ZU12 PH	25 g	60 min	10 %
Boil	Zibi	20 g	45 min	10.3 %
Aroma (end of boil)	Izabella PH	30 g	0 min	6.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	400 ml	---