

# Tonka stout

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **31**
- SRM **26.5**
- Style **Sweet 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 **5 %/h**
- Boil size **24.1 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.9 liter(s)**
- Total mash volume **25.6 liter(s)**

## Steps

- Temp **63 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **19.9 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **20 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (70.2%)	85 %	7
Grain	Strzegom Karmel 600	0.3 kg (5.3%)	68 %	601
Grain	Strzegom Czekoladowy 400	0.4 kg (7%)	68 %	400
Grain	Jęczmień palony	0.1 kg (1.8%)	55 %	985
Grain	płatki jęczmienne	0.4 kg (7%)	60 %	4
Grain	monachijski barke	0.5 kg (8.8%)	78 %	21

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	40 g	15 min	15.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	500 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Flavor	tonka	50 g	Secondary	5 day(s)