

# Żytni stout

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **44**
- SRM **40.8**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **13.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.6 liter(s)**
- Total mash volume **15.4 liter(s)**

## Steps

- Temp **69 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **11.6 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **10 min** at **76C**
- Sparge using **5.5 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount          | Yield | EBC |
|-------|-----------------------------|-----------------|-------|-----|
| Grain | Pilzneński                  | 2.25 kg (58.4%) | 81 %  | 4   |
| Grain | Żytni                       | 0.75 kg (19.5%) | 85 %  | 8   |
| Grain | Weyermann - Chocolate Rye   | 0.25 kg (6.5%)  | 20 %  | 493 |
| Grain | Jęczmień palony             | 0.1 kg (2.6%)   | 55 %  | 985 |
| Grain | Karmelowy żytni Strzegom    | 0.25 kg (6.5%)  | 75 %  | 150 |
| Grain | Weyermann - Chocolate Wheat | 0.25 kg (6.5%)  | 74 %  | 788 |

## Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 15 g   | 60 min | 15.5 %     |
| Aroma (end of boil) | East Kent Goldings     | 10 g   | 10 min | 5.1 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11 g   | Safale     |

## Notes

- Wzorowane na Żytomierzu.  
*Feb 13, 2020, 7:53 PM*