



Application Data Sheet

DSM Food Specialties B.V.

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RAPIDASE[®] SMART

Powerful pectinase for apple juice extraction with a press

BENEFITS

- Faster juice extraction with increased yield
- Improved press loading capacity
- Significant decrease in pomace stickiness

PRODUCT DESCRIPTION

Enzyme preparation for food use containing polygalacturonase (pectinase) and pectin esterase (pectinase) derived from a selected strain of *Aspergillus niger*.

FUNCTION

RAPIDASE[®] SMART has been developed for the apple maceration and only contains two distinct pectinases, produced by self-cloned *Aspergillus niger* strains:

- Pectin esterase (PE) for pectin demethylation
- Endo-polygalacturonase (PG), to hydrolyze the soluble pectin after its demethylation by the PE activity

RAPIDASE[®] SMART does not contain any other pectinase activity (such as pectin lyase) or any of the side activities present in classical pectinases preparations (cellulases, hemicellulases). Therefore, it does not lead to mash over-maceration.

This unique combination of pectinases increases the yield and capacity of equipment, with faster degradation of the soluble pectin, resulting in lower viscosity of the mash, higher free run juice volume and better pressability.

APPLICATION AND RECOMMENDED DOSE RATES

RAPIDASE[®] SMART must be added during fruit crushing with a metering pump. Just before use, to ensure adequate mixing, it should be diluted in 10 to 20 times its volume of water (see dosage in the table below). After extraction, juice must be checked for pectin and starch content. If needed, depectinization of juice can be achieved using RAPIDASE[®] SMART CLEAR and starch hydrolysis is done using HAZYME[®] DCL.

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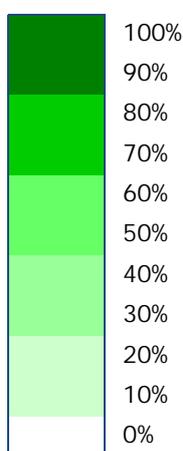
HEALTH • NUTRITION • MATERIALS



Application	Dosage	Recommendation
Beginning of processing season	50-100 g/ton of apples	30-60 min at room T°
End of processing season	100-150 g/ton	30-60 min at room T°

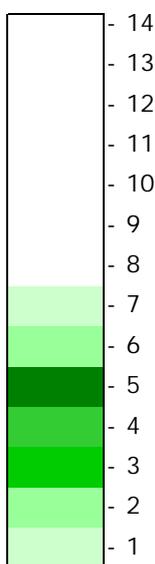
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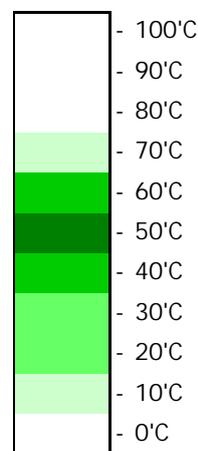
pH Effect on Enzyme Activity

% pH



Temperature Effect on Enzyme Activity

% Temperature



TECHNICAL SERVICE

This product was developed by our dedicated team of experts. We can help you maximize the efficiency of your process by utilizing our extensive biochemical knowledge and many years of enzyme experience. Please contact your local DSM Food Specialties technical sales representative to receive additional information on meeting your needs.

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