

INTERNATIONAL  
STANDARD

ISO  
24047

First edition  
2021-02

---

---

---

**Plastics — Polyethylene (PE) and  
polypropylene (PP) thermoplastics  
— Determination of metal content by  
ICP-OES**

*Plastiques — Polyéthylène (PE) et polypropylène (PP) —  
Détermination de la teneur en métal par ICP-OES*





## **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

|  | Page      |
|--|-----------|
| <b>Foreword</b>  | <b>iv</b> |
| <b>Introduction</b>                                    | <b>v</b>  |
| <b>1 Scope</b>   | <b>1</b>  |
| <b>2 Normative references</b>                          | <b>1</b>  |
| <b>3 Terms and definitions</b>                         | <b>1</b>  |
| <b>4 Principle</b>                                     | <b>1</b>  |
| <b>5 Reagents</b>                                      | <b>2</b>  |
| <b>6 Apparatus</b>                                     | <b>2</b>  |
| <b>7 Sample preparation</b>                            | <b>2</b>  |
| 7.1 Cleaning glassware                                 | 2         |
| 7.2 Preparation of working standard solutions          | 3         |
| 7.3 Preparation of test solution                       | 3         |
| <b>8 Procedure</b>                                     | <b>3</b>  |
| 8.1 Instrument set up                                  | 3         |
| 8.2 Preparation of calibration curve                   | 3         |
| 8.3 Sample analysis                                    | 4         |
| <b>9 Expression of results</b>                         | <b>5</b>  |
| <b>10 Precision</b>                                    | <b>5</b>  |
| <b>11 Test report</b>                                  | <b>5</b>  |
| <b>Annex A (informative) Summary of precision data</b> | <b>6</b>  |
| <b>Bibliography</b>                                    | <b>9</b>  |