

PRODUCT INFORMATION BULLETIN

Calon[®] Thermal Imaging Receptive CalPlus Vinyl Film

Series 4559: Perforated

- Available in clear and white
- Flexible, 3-mil, calendered PVC made for easier handling
- Great print quality
- Recommended for flat and soft curved surfaces
- Up to 5-year durability

<u>PROPERTY</u>	<u>TEST METHODS</u>	<u>TYPICAL VALUE</u>	
SURFACE FINISH	Gloss Meter 60° Reflection Satin Finish Type Films	40 – 60 units	
THICKNESS (including adhesive)	Micrometer, Federal Bench Type	ENGLISH 0.0043 in	METRIC 0.11 mm
TENSILE STRENGTH	Tensile Tester with 2-in (51 mm) jaw separation; crosshead speed of 12 in/min. (5.1 mm/s), web direction	10.0 lb/in width	1.8 kg/cm width
ELONGATION	Instron Tensile Tester as above	≥150%	
SHELF LIFE	Free from excessive moisture, temperature, direct sunlight	1 year from factory shipment	
APPLICATION TEMPERATURE RANGE	On clean substrate	60°F to 90°F optimum	15°C to 32°C optimum
SERVICE TEMPERATURE RANGE	Film applied to etched aluminum panels 24 hours prior to testing	-40°F to 150°F	-40°C to 65° C
HUMIDITY RESISTANCE	Film applied to etched aluminum panels 24 hours prior to testing; 100% relative humidity at 100°F (38°C) for 24 hours	No appreciable effect	
GASOLINE RESISTANCE	Film applied to etched aluminum panels 24 hours prior to testing; immersed 15 minutes at 70°F (21°C); stabilized 24 hours before inspection	No appreciable effect	
DIMENSIONAL STABILITY	158°F (70°C), 48 hours	0.025 in	0.64 mm nominal
PEEL ADHESION	PSTC-1, 15 min, RT 72°F (23°C)	≥40 oz/in	≥0.45 kg/cm
LINER RELEASE	300 in/min (762 cm/min)	150 g/2 in	30 g/cm

Note: May not be suitable for some long-term vehicle applications due to rigorous washing cycles and the wide variety of paints, some of which are not compatible with adhesives.
*Series 4559 is specially made for thermal imaging – rolls are splice-free, polybagged.

Standard Terms and Conditions Apply

Effective 03/05

TERMS AND CONDITIONS

- ACCEPTANCE OF ORDERS.** All orders are subject to acceptance by authorized Arlon personnel at Division Headquarters in Santa Ana California or San Antonio, Texas.
- SCHEDULING.** Shipping dates are approximate and are based upon prompt receipt of all necessary information. The Purchaser shall furnish to Arlon written shipping instructions in sufficient time to permit Arlon to make shipment at Arlon's option within the time or times herein specified for shipment. In the event of a delay in delivery due to any reason described in Section 14 below, the delivery date shall be deferred for a period equal to the time lost by reason of the delay. In the event such delay shall continue for more than two weeks, then, at Arlon's option, the order will be deemed cancelled without liability to Arlon.
- DELIVERY AND TRANSPORTATION.** Unless otherwise agreed to in writing by authorized Arlon personnel, delivery of the products hereunder shall be made FOB at the point of shipment, with delivery to the initial carrier to constitute delivery to the Purchaser. Title to products passes to the Purchaser and products are at risks of the Purchaser from and after delivery to the initial carrier. Transportation expense will be paid by the Purchaser and risk of loss, shortage, delay or damage to the products in transit shall fall upon the Purchaser, whose responsibility it shall be to file claims with the carrier.
- PRICES.** Prices are subject to change without notice, unless expressly designated as firm for a specific period pursuant to a written quote or sales acceptance issued by Arlon
- TAXES.** Prices do not include foreign or domestic sales, use, excise or similar taxes. Consequently, in addition to the prices specified herein, the amount of any present or future sales, use, excise or other general or specific tax, or imposts, duties or penalties or other governmental charges fixed or imposed by any shipment, delivery or use of the products sold hereunder shall be added to the price and paid by the Purchaser or, in lieu thereof, the Purchaser shall provide Arlon with a tax exemption certificate acceptable to the taxing authorities.
- WARRANTY.** Arlon will, at our option, replace non-salable materials or refund purchase price thereof. The company's liability at no time will exceed replacement of non-salable merchandise. We cannot guarantee the results obtained through the use of our products, due to the wide variance in applications. All Arlon materials are sold with the understanding that the buyer has independently determined the suitability of such materials. Neither the seller nor manufacturer shall be liable for any injury, loss or damage, direct or indirect, arising from the use of or the inability to use this product. No salesman, representative, or agent is authorized to give any guarantee, warranty, or make any representation contrary to the foregoing. Arlon further warrants that all products and services furnished hereunder have been produced in full compliance with all applicable laws and regulations, including the relevant requirements of Section 6, 7, and 12 of the Fair Labor Standards Act, as amended, and of regulations and orders of the US. Department of Labor issued under Section 14 thereof. Arlon shall also be in compliance with pertinent requirements of Executive order 11141 and 11246, as well as the Rehabilitation Act of 1973 as amended.

THE FOREGOING STATES THE SOLE AND EXCLUSIVE REMEDY OF THE PURCHASER AND THE SOLE AND EXCLUSNE LIABILITY OF ARLON. THE WARRANTIES STATED IN THIS PARAGRAPH ARE IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR VERBAL, STATUTORY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE.

This transaction is made upon the condition and agreement that, with respect to said products, there have been no representations or undertakings made by or on behalf of Arlon, and Arlon makes no guarantees or warranties, express or implied, in fact or in law, except as expressly stated above.
- LIMITATION OF LIABILITY.** Arlon shall not be responsible, obligated, or liable for any injury or damage resulting from an application or use of its products, either singly or in combination with other products. Except as stated below regarding Patents, Arlon's **SOLE LIABILITY FOR BREACH OF WARRANTY OR ANY OTHER CLAIM SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCTS OR RETURN OF THE PURCHASE PRICE. AT ARLON'S SOLE OPTION. ARLON SHALL NOT BE LIABLE FOR DAMAGES, INCLUDING BUT NOT LIMITED TO CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OR THE PRODUCTS OR ARISING OF ACCEPTANCE OF THIS ORDER.**
- ACCEPTANCE OF PRODUCTS.** Products will be deemed accepted without any claim by Purchaser unless written notice of non-acceptance is received by Arlon within 30 days of delivery if shipped FOB point of shipment, or 10 days of delivery if shipped FOB point of destination. Such written notice shall not be considered received by Arlon unless it is accompanied by all freight bills for such shipment, with Agent's notations as to damages, shortages and conditions of equipment, containers and seals. Non-accepted products are subject to the return policy stated below.
- RETURN OF PRODUCTS.** No product may be returned to Arlon without Arlon's prior written permission, which permission may be withheld by Arlon in its sole discretion. If products are returned to Arlon within sixty (60) days from the date hereof for reasons other than an error by Arlon in filling the Purchaser's order, Purchaser shall only be entitled to receive a credit in an amount equal to the payment received by Arlon for the product minus handling charges determined solely by Arlon which shall not exceed twenty percent (20%) of the invoiced amount. If products are returned to Arlon after sixty (60) days from the date hereof for reasons other than an error by Arlon in filling the Purchaser's order, Purchaser shall only be entitled to receive a credit in an amount equal to the payment received by Arlon for the product minus a handling fee in excess of twenty percent (20%) which shall be subject to negotiations between Arlon and Purchaser.
- LIMITATION OF ACTIONS.** Irrespective of whether Arlon agreed to perform field-start-up or any other service after the delivery of the product, all claims or actions must be brought within one (1) year of date of tender of delivery, or 18 months of date of this order, if no tender of delivery is made not withstanding any statutory period of limitation to the contrary.
- PATENTS** Arlon shall defend any suit or proceeding brought against the Purchaser so far as based on a claim that the manufacture and sale of any product, or any part thereof, furnished under this contract, constitutes an infringement of any patent of the United States, if notified promptly in writing and given authority, information and assistance (at Arlon's expense) for defense of same, and Arlon shall pay damages or costs awarded therein against the Purchaser.

The use of such products by the Purchaser is beyond the control of Arlon, and Arlon shall have no obligation or liability whatsoever in connection with any suit claiming infringement by reason of the use of the products. In case the manufacture or sales of said product, or any part thereof, is in such suit held to constitute infringement, Arlon shall, at its own expense and at its option, either procure for the Purchaser the right to continue using said product or part, or refund the purchase price and transportation costs. The foregoing states the entire liability of Arlon for patent infringement by said product or any part thereof. Arlon reserves the right to discontinue deliveries of any product the manufacture or sale of which in its opinion may involve patent infringement.

Notwithstanding the provisions of the preceding paragraph, the Purchaser shall hold Arlon harmless against any expense or loss resulting from infringement of patents or trademarks arising from compliance with Purchaser's designs, specifications or instructions.

The sale of products, or parts thereof, by Arlon does not convey any license, by implication, estoppel, or otherwise, under patent claims covering combinations of said products or parts with other devices or elements.
- PAYMENTS** Buyer agrees to pay all invoices in accordance with the terms and conditions of Arlon sales policies. Delinquencies are subject to a 1.5% monthly service charge per month.
- FINANCIAL RESPONSIBILITY.** In the event of a decrease in the market price, or if in the sole judgment of Arlon, the financial resources of Purchaser become impaired or unsatisfactory at any time during the term of this contract, then Arlon may require of Purchaser a deposit of suitable security or margin for performance by Purchaser in such amount or amounts from time to time as Arlon shall specify not exceed the difference between the market price and the contract price. Upon requirement of deposit, Purchaser shall make such deposit not later than the close of Arlon's next business day. If Purchaser fails to make such deposit then Arlon may at its option: (1) cancel this contract or the undelivered portion thereof, in which case Purchaser agrees to pay Arlon the difference between the market price on date of cancellation and the contract price; (2) resell at any time for Purchaser's account all or any undelivered portion of this contract, in which case Purchaser agrees to pay Arlon the difference between the resale price and the contract price or (3) otherwise change the terms of payment therein specified. In the event Purchaser shall be or become insolvent, or admits in writing Purchaser's inability to pay his debts as they mature, or if Purchaser shall make an assignment for the benefit of creditors or any general arrangement with creditors, or if there instituted by or against Purchaser proceedings in bankruptcy or under insolvency law or for reorganization, receivership or dissolution, Arlon may terminate this Agreement at any time and without notice.
- FORCE MAJEURE.** In the event of war, fire, epidemics, quarantine restrictions, flood, strike, labor trouble, breakage of equipment, accident, riot, the imposition of any government price control, regulation or any other act of governmental authority, acts of God, or other contingencies (whether similar or dissimilar to the foregoing) beyond the reasonable control of Arlon that interfere with the production, supply, transportation, or consumption practice of Arlon at the time respecting the products covered by this contract, or in the event of Arlon's inability to obtain such on terms deemed by Arlon to be reasonable during period of such causes, Arlon may terminate or modify its supply commitment defined in the contract without liability, but the contract shall otherwise remain unaffected. Arlon may, during any period of shortage due to any of said causes, allocate its supply of such raw materials among its various uses thereof (e.g., manufacturing and sales) in such manner as Arlon deems practicable and allocate its supply of such products among such various users thereof in any manner which Arlon deems fair and reasonable.
- REASONABLE ATTORNEY'S FEES.** In the event suit or other proceeding shall be brought for the recovery of the purchase price, or any unpaid balance, or the breach by Purchaser of any term herein contained, Purchaser shall pay to Arlon, in addition to any damages provided by law, reasonable attorney's fees costs of collections.
- SECURITY TITLE.** Security title and right of possession to the products sold hereunder shall remain with Arlon until all payments hereunder (including deferred payments whether evidenced by notes or otherwise) shall have been made in cash. The Purchaser agrees to do all acts necessary to perfect and maintain such security right and title in Arlon.
- CANCELLATIONS.** The Purchaser may cancel an order only upon written consent and upon payment to Arlon of cancellation charges, if any, which shall take into account, among other things, expenses incurred and commitments already made by Arlon.
- GENERAL** This agreement and matter connected with the performance thereof shall be construed in accordance with, and governed by, the law of the State of California as if it were executed and performed entirely within the State of California. Further, it shall be construed to be between merchants.

Arlon will comply with all applicable Federal, State and local laws, and specifically represents that any products to be delivered hereunder will be produced in compliance with the requirements of the Labor Standards Act of 1939, as amended.

Any assignment of this agreement, or any rights or obligations thereunder, by the Purchaser without written consent of Arlon shall be void.

Except as may be expressly provided to the contrary, in writing, the provisions of this contract are for the benefit of the parties hereto and not for any other person.

This agreement contains all of the representations, stipulations, warranties, agreements and understandings with respect to the subject matter of this agreement, and its execution has not been induced by any representation, stipulation, warranty, agreement or understanding (including any course of prior dealings between the parties hereto) of any kind other than those herein expressed.

No amendment, addition to, alteration, modification or waiver of all or part of this agreement shall be of any force or effect unless in writing and signed by Arlon's Division President. If the terms and conditions of this agreement conflict with those of any purchase order of Purchaser written in connection with sale of the products or any portion thereof, then the terms of this agreement shall govern.
- ARBITRATION.** Any controversy or claim arising out of or relating to this agreement, or the breach thereof shall be settled in Orange County, California by arbitration in accordance with the Rules of the American Arbitration Association, and judgment upon the award rendered by the Arbitrator may entered in any Court having jurisdiction thereof.